THE CAFETERIA AN AID TO WELFARE WORK

GRADUATING THESIS

of

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P R E F A C E

During the past century, rapid strides have been made in the field of the social sciences, especially in psychology and sociology. It is now an axiom in both that symmetrical character cannot be developed without taking into account every original tendency with which the individual is endowed at birth, and every element of his environment from birth to death.

Singularly enough, the emphasis placed upon the so-called Four-Fold program of the Young Men's Christian Association has been in this direction. Its significance has never been fully realized even by the movement which sponsored it. It has now been woven into the fabric of the body politic until the idea of ministering to the whole personality is, with few exceptions, the aim of every welfare organization.

Early in the history of the Young Men's Christian Association this Four-Fold program included a dining service. Sir George Williams, the sagacious founder of the movement, understood full well the value of the common meal. His "May Breakfasts" in London were far famed in that city. It was here that programs were formed and policies were projected.

It is refreshing now to hear sociologists talk about the socializing value of the common meal. This is not a new idea. Feasting together has come down to us through the ages. The closest bonds and the most propelling enterprises have found their origin in this way. The breaking of bread has

lost none of its mystic significance since the days of the lowly Nazarene. We do not now wonder that He used the feast of the Day of Unleavened Bread to kindle flames of loyalty in His wavering disciples.

Twenty centuries have passed. The church has projected its welfare movements. The Young Men's Christian Association, the Young Women's Christian Association, the Knights of Columbus, the Young Men's Hebrew Association, the Social Settlement (children of the twentieth century) have apparently found a permanent place in society. Experiment after experiment has been tried by these organizations to find a solution of the restaurant problem. Unwarranted risks, embarrassing deficits, and unexpected disappointments have stimulated research in this field until it is now possible to say that a solution seems to be available.

It is the purpose of this publication to place the best thought of experienced executives at the disposal of those agencies which seek aid in operating a dining service. It is not claimed that this is a panacea for all restaurant ills, but it is believed that it will prove a solvent for many difficulties which now fetter overtaxed executives.

CHAPTER I

TYPES OF SERVICE

The occasional meal was all that was attempted in the early day of the welfare society. Teas, luncheons, suppers, and an occasional banquet were provided. It was soon discovered that this meager service was not adequate. The only purpose which it served was promotional. It did little for either the individual or the institution, except as it led to unselfish service.

Social pressure resulted, and the standard restaurant was adopted. This had some real advantages. It created a home-like atmosphere in any building. The man away from home had a place to which he might go, where he could enjoy the culture of a cultured environment at moderate costs. Linen, decorations, service - all made it possible to endure absence from home.

It was a conventional service, such as prevailed in hotels and business centers. It was a constant stimulant to the social urge, it being here that many friendships were formed.

It had, however, its disadvantages. It was difficult to compete with commercial restaurants without defeating the idea of service rendered within a building dedicated to that purpose. It cost money to provide adequate service. It catered, as most welfare movements must, to the middle class - a class which wishes to pay as it goes, but which constantly seeks real value.

The day of keen competition came. The race seemed to be to the swift. The group which was most seriously affected

by the short dinner hour was the very one which patronized the welfare society. Service was too slow to accommodate the man or woman who must get a hurried meal, and patronage declined.

It was soon discovered that the competing forces of adequate financial returns and the need for economy on the part of patrons could not be reconciled in this type of service. The financial hazard was too great. An attractive service then became the key-note of the era. Maintain quality; and all would be well. This policy drove the margin of profit into a still more precarious position. It also resulted in a patronage which loitered about the table, automatically discouraging the hurried patron. All of these complications could lead but to one outcome. Sooner or later a financial crash must come. It did come in many institutions. Restaurant after restaurant was reorganized. A new management was employed. Every device known to the business world was resorted to, that trade might be encouraged. Locations were shifted from basements to the roof and back again; advertising specialties flooded communities; extravagant claims were advanced; but they all led to the same inevitable result - accumulated bills and embarrassing deficits. Many closed their restaurants and vowed they would never reopen them.

The Lunch Room. In an effort to provide a substitute, the dairy lunch was launched in the American cities. The dormitory had become firmly established in many buildings. Many young men and women living in the buildings of the Young Men's

and Young Women's Christian Associations insisted upon having a dining service. The dairy lunch was practically the only thing which they could afford to patronize. In desperation the Young Men's Christian Association in particular entered the dairy lunch field. It had many advantages which the dairy lunch may still rightly claim. Financial operations are simple. Prices may be placed within reach of all; cheaper foods may be served with much greater speed; little loss or waste occurs, since all odds and ends may be advantageously displayed and sold; the investment is small; and service is greatly accelerated.

It soon became apparent that this type of service had but a very limited use. It was adapted to institutions patronized only by men, where speed of service was the prime factor. This was especially true at junction points on railway systems, and in congested districts of large cities, where the man on the street desires quick service. It was a makeshift for hurried men. It resembled the bar-room. The aesthetic touch was gone. A continuance of the plan would eventually drag down the whole tone of the building, no matter under whose auspices it was being operated.

This type of service still seems to have a real place in many such buildings. It may be operated at a reasonable profit and without anxiety. Its tone may be greatly benefitted by the standard of the service rendered. It has many advantages which still commend it within a restricted area.

CHAPTER II

THE CAFETERIA

While these two types of service were striving for mastery, an unexpected competitor appeared. The scarcity of reliable help and the financial hazard were, no doubt, the controlling influences which led an enterprising restaurant manager to undertake an innovation. It is believed that the plan was first tried on the Pacific Coast, and in the city of Los Angeles. An appropriate name has never been found for it. It is sometimes spoken of as the Self-Service Plan, but more commonly, the Cafeteria.

Its form is now too common in the United States to necessitate a description. It is simply a restaurant, adequately equipped, but in which self-service is featured. The patron goes to the serving counter, where he falls into line, passes in front of an attractive display, from which selections are made, and then takes a seat at a properly arranged table. In a community where labor is abundant, and cheap, the Cafeteria may not be appreciated. Where competent help is scarce, this type of service has proven a real boon to welfare organizations. Like the other types of service, it has both advantages and disadvantages.

It may readily replace the old-time restaurant. The appointments may be quite as attractive, the fellowship may be quite as inviting, the aesthetic appeal may be quite as greatly satisfied as in the well appointed restaurant. The cost of

operation is greatly reduced, there being no waiters to pay. Unusual values may be given at moderate prices, because nearly all costs may go into actual food. The discord in a restaurant is greatly reduced; service is greatly expedited; and the patron is actually better satisfied with what he eats. To make a selection of food from a counter where the food is displayed is a greater advantage than is apparent. Many highly respectable people patronize the cafeteria because of this fact alone.

The variations in diet are also greatly increased. Best of all, the financial operation is simple. With a properly devised system of accounts and the greatly reduced cost of overhead, the Cafeteria may be made attractive, economical, and profitable. It is in keeping with an atmosphere of refinement and even luxury.

It must be freely admitted that there is a discordant note or two in its operation. The tendency of the Cafeteria trade is to hurry through the meal. Many do not wish to carry their own food or to stand in line. Trays are awkward. Embarrassments occasionally result from upset dishes; and self-service is only partially complete, as patrons will not carry soiled dishes from the table. The Cafeteria may, however, overcome this by supplying service to remove dishes and keep tables in order.

Frequently the ordinary restaurant is operated as an adjunct to the Cafeteria, some people being willing to pay higher prices to secure complete service. As a matter of fact,

however, this additional service is not much in demand except for an occasional committee meeting.

The marked advantages of the Cafeteria may be summed up in the statement that the financial hazard is greatly reduced, the possibilities of reasonable profits are greatly increased, and the help problem is greatly simplified.

It has proven so serviceable that it has almost gained control of the field in welfare work. It seems to have become quite as standard in most institutions as has the gymnasium, the social rooms, the baths, and the swimming pool. It has been a great blessing, the extent of which is not fully realized until, through some untoward event, a cafeteria of long standing is temporarily closed.

CHAPTER III

L O C A T I O N

The estimate which has been put upon the restaurant as an aid to character building has inevitably led to locating it in any portion of a building not in demand for other activities. The result has been that seldom, if ever, has it been properly located. It is the intent of this particular chapter to discuss the merits of possible locations.

The Basement.---Many successful restaurants have been operated in basements. In fact, this location has many ardent advocates.

It is unquestionably a great disadvantage to have the dining and serving rooms separated from the kitchen. The congestion which naturally results from undertaking a wide and varied program in a building which is seldom, if ever, large enough, has generally meant that the kitchen, at least, must be in the basement. Granting this, there is much to be said for the basement location for the restaurant. In such a plan, serving is greatly expedited and the danger of transporting dishes and the shouting of orders are eliminated.

Those who believe that this is the place for the restaurant plead that an institution like the Young Men's Christian Association is not primarily an eating house: the place for the restaurant is "out of sight:" put it where it is inconspicuous but convenient: any other location necessarily attracts the

Plan of KITCHEN and the REFECTORY SERVICE ROOM in Ida Noyes Hall, University of Chicago. (For description see text.)

ladies; and, if the institution is run primarily for men and boys, creates a wrong impression as to the purpose for which the building was erected: the basement location isolates the restaurant trade.

But the basement has many drawbacks. It is hard to ventilate. The windows are frequently but half length, and above the heads of patrons. It must be artificially lighted for every meal throughout the year.

The most serious objection seems to be that unless there is a special outside entrance, patrons have difficulty in finding it, especially those who are not familiar with the building. It is also generally known that the other parts of the basement are used for bathing, swimming, storing coal, etc. These seem to take the edge from aesthetic values. This is specially true if there are draughts coming from basement corridors.

The Second Floor.---Many buildings face the necessity of a choice between the main and the upper floors. Land is at a premium in the hearts of great cities. It is much easier to build another story or two than to purchase additional ground space. In such an event, the second floor (or even one higher up) does very well. Such a location is convenient to one important section of the trade - the permanent resident. The more desirable space in the building is then left for other activities. The patrons of the restaurant, including ladies, get an opportunity to understand the institution or organization as they pass to and fro.

However, it has disadvantages. Patrons must use stairways or elevators to reach the dining room. The public is not inclined to climb stairs for a meal. There are too many convenient restaurants upon the main streets. If the elevator is used, there is always the possibility that machinery will break down during the busy hour. Several highly successful restaurants have been ruined by poor or inadequate elevator service. It is also annoying to have the dirt from the street trailed up many flights of stairs. If the building is designed for male patronage, ladies must, of necessity, be excluded from the upper floors. The higher the floor, the fewer will be the people who patronize it; and the greater will be the problem of maintenance. In no case should it be higher than patrons can climb without serious fatigue, unless there is an elevator which is faultless.

The First or Main Floor.----The Association or social settlement which has found it convenient to place its restaurant on the main floor is happy with it there. Its convenience, accessibility, advertising possibilities, etc., have proven highly serviceable. In fact, it is hard to overestimate the advertising possibilities of a well conducted restaurant in a location such as this. Many an institution has altered the whole appearance of its buildings by discontinuing restaurant service for a time. An air of intense activity, with its hustle and sociability, has been quickly converted into an air of inactivity and chilliness when the restaurant was closed.

A keen management will capitalize this display of activity. Doors will be thrown open into other parts of the building; window lights will be placed in doors leading to gymnasiums; attractive posters will be displayed, and the restaurant will be made a great recruiting center. The problem of advertising the restaurant itself will be simplified.

It is frankly admitted that there may be other activities which are more important, and which will demand right of way as to favorable location. It is also frankly admitted that the one great drawback to such a location is the dining room odor, which has a tantalizing habit of following currents of air through hallways, and up stairs, even to the roof. This can be overcome, however, through forced ventilation.

Irrespective of location, a mistake must not be made in assuming that this service will not grow, and that expansion does not need to be taken into account. A building which is properly constructed should be serviceable for nearly a century. It may be written off the books of the institution on the basis of depreciation, but, if properly constructed and cared for, it ought to be useful for many years. Cities grow rapidly, and the patronage of the welfare organization should grow likewise. There will come a time when restaurant trade refuses to wait for service. To safeguard against this, it is advisable to so plan that when necessity demands it there is a way of securing more space.

CHAPTER IV

PATRONAGE

One of the debated points in some institutions whose avowed purpose is work for men and boys has been whether, in a building so planned, women should be admitted to the restaurant. The same issue over men has been raised by institutions whose buildings have been dedicated to the use of women.

To some institutions this is a minor question, or no question at all. The institutional church professes to serve both sexes alike, just as does the social settlement. There are some organizations which claim that, after all, the family should be the unit, and that the segregation of the sexes is unnatural and unwise. Much may be said for this claim, though it has yet to be proven that its merits will outweigh the merits of work designed for either of the two sexes.

From the beginning of its history, the Young Men's Christian Association has claimed that the field afforded by the unattached young man, the man away from home, was so vast that, try its best, it could not do all that was required. This class was so needy that its main drive must be for them. The man with family connections would be welcome, but the supreme effort must be made for the other group. The Young Women's Christian Association adopted a similar policy for young women. It is unquestionably true that in our large cities there are great numbers of young men away from home.

Nearly as many young women are away from home. Cheap lodging houses are crowded with these young people. The situation is aggravated in industrial communities. To mix these groups in any one institution obviously creates so many problems that it is believed this cleavage of the sexes will continue. In those residential communities, or in a certain group of small town or rural communities, the family unit may afford the natural basis of welfare work - but this is obviously not the case, and is not likely to be, in the large centers.

This being the case, the issue must be met of whether in such a building there is one activity in which mingling of the sexes may be encouraged.

It has been demonstrated many times that a restaurant will not be operated successfully where its patronage is too limited. This has frequently outweighed the issue of mingling of the sexes and women have been freely admitted to the Men's Building, and vice versa. Those institutions which have tried this experiment as a means of drawing trade have found that in the final analysis objections were more fanciful than real. They have found that a mixed patronage can use a restaurant in one of these buildings without encroaching in the least upon other activities.

In fact, it is now believed by most of executives that the atmosphere of the dining room is toned up considerably by welcoming both sexes. The restaurant has more of the

atmosphere of home. It becomes a real social center, and affords an opportunity for good fellowship, appreciated alike by men and women.

There may be buildings whose patronage by members is so heavy that guests should not be entertained. This frequently happens in the large central building in which many dormitories are located. In such a situation it is a breach of trust to divert the facilities which have been provided by generous friends from the purposes for which they were designed. The restaurant should in such an event be limited to the use of the group for which it was built.

In conclusion, it may be said that it is now the general practice to admit both men and women to restaurants in all welfare institutions, excepting occasionally in the large cities and the down town districts.

Permanent Residents. Mention should be made of those who reside permanently in these buildings. Many restaurants have been started for the sole accommodation of such individuals. But, such patronage has usually proven disappointing. A building accommodating one hundred permanent residents will be used as typical. Of the number residing in the building, it is not at all unlikely that twenty-five will be absent from the city a good part of the time. Another twenty-five will dine at some other restaurant. Of the remaining fifty, thirty-five are likely to be regular restaurant patrons. This typical case is given as a warning to any

organization which believes it may maintain a restaurant in which the bulk of the trade will come from permanent residents. It is a significant thing that restaurant trade shifts from place to place, always in quest of a meal which will be unusual.

This is not saying that the permanent residents of the building should not be solicited as patrons. Everything possible should be done to encourage them. This is the most difficult group to please. The same old service becomes monotonous; the restaurant help becomes ordinary; the same odors nauseate; and many things conspire to make the holding of this trade difficult.

An occasional institution has tried the expedient of setting aside certain tables for the permanent residents. A few extra touches have been put upon these tables to create a more homelike atmosphere. This would seem to be a highly commendable plan, which is quite generally appreciated.

Others have resorted to the use of discounts to permanent residents. The whole discount idea, whether it be in the form of a cash rebate or a meal ticket, creates the impression that patronage of the restaurant is a bargain counter affair. It puts the restaurant into the group of cheap cafes, which constantly resort to such tactics to draw trade. The better practice has been to so magnify the service that no special inducements need be resorted to.

In an occasional institution no one is entitled to room in the building without paying for a certain number of meals per week as a part of the resident charge. This plan generally meets with rather violent opposition. It is a plan which ought to be started, if at all, with the entrance into a new building. It is at best an experiment, strongly savoring of coercion, which should be used very sparingly.

The Laboring Man. Quite frequently institutions have been deluded into thinking that a standard restaurant would be patronized by men in industry. A word of warning is given. Traditionally the working man has carried his lunch. When the whistle blows, he does not feel sufficiently presentable to enter a dining room in which there are neatly clad men, or women. He naturally shrinks from social contacts until he, too, may don his linen and best clothing. He is not, as a rule, attracted by quality of service. The thought which he harbors is to eat a hasty lunch, have his accustomed rest, and be ready for work when the whistle blows. He may be in entire accord with the objects of the institution next door, but he will not patronize its standard dining service. This applies with equal force to the girl in industry. Later on in the day she feels quite at home with the best people of a community, but during the working hours she covets the society of her own group. A special lunch room for either of these groups is quite feasible. No attempt, however, to get them to mingle with the down town trade at the noon hour will be successful.

CHAPTER V

INTERIOR FINISH

One of the most vital forces which plays upon our lives is suggestion. It springs from the perceptive activities, or those activities which we recognize through the use of the senses. These impressions may be either active or passive. In active perception, conscious effort plays a part. In passive perception, there is no conscious effort; varied impressions flow in upon us and press in past our "ego" directly to the general consciousness. These impressions produce influences which even we do not understand, but which determine our emotional attitudes. It is because of this fact that the question of the kind of room in which people dine seems worthy of attention. Many an occasion has been arranged with care only to prove a disappointment simply because attention was not given to the place in which the function was held. Passive perception created an emotional state which was utterly out of harmony with the function. It is therefore vital that interior finish be considered. Flooring is one element of the environment of a room. If it is out of harmony with walls, ceiling, or furniture, or if it is noisy, or cannot be made to look clean and attractive, it is not suited to the restaurant. Floors may be divided roughly into four types.

1. The Cement Floor. This floor is probably the cheapest of all. It is easily laid. It is not affected by dampness. It has, however, great drawbacks. It is cold and utterly void of good cheer. It will do in those parts of the building where patrons move to and fro with wet feet, and without thought of

emotional response. Stains, when once made, can hardly be eradicated. It is noisy. These objections seem to render the cement floor impractical in the restaurant. Where it must be installed, one of the objections may be relieved by painting with a cement paint, and in a color or tint which harmonizes.

2. The Cement Floor and Linoleum. Many buildings have found that a cement base, upon which cork or battleship linoleum could be laid, is very serviceable. This is doubtless a very satisfactory floor, though not a close competitor with some others. In installing this floor, great care must be exercised. Wooden strips must be imbedded in the cement at frequent enough intervals to permit fastening of the linoleum. These strips should be of soft wood, carefully imbedded, and run in parallel lines across the room. Even greater care, however, must be exercised in laying the linoleum, which is inclined to break away, to buckle, and to prove otherwise annoying.

3. The Wooden Floor. Most buildings are equipped with the wooden floor. It has a warmth about it which can hardly be duplicated by any other type. Ordinarily the floor of the dining room is made of oak, filled, and varnished in a tint in keeping with the woodwork. The waxed floor is superior to the varnished, but is more difficult to keep in good condition. Where wax can be used, it adds a touch of the aesthetic. The objection to the wooden floor is that it cannot be washed; and the occasional slopping of coffee or upsetting of trays makes washing quite essential.

4. The Composition Floor. There are many kinds of composition floors, the most common of which is the terrazzo, or the cement floor with pieces of stones imbedded in it. Occasionally it is made of colored cement. The advantage in using this kind of a floor is that it may be easily cleaned. The tinting of the cement does away with the coldness. The composition floor may be used to advantage. It is well, however, to insist upon a guarantee of a five-year period from the contractor.

5. The Tile Floor. This is considered par excellence for dining rooms in commercial establishments. The tile may be easily cleaned, may be very attractively laid, and may be made to add to the atmosphere of the room. It is not quite as homey in appearance as the wood floor, but the sense of cleanliness which it imparts offsets other objections. It is probably the most expensive floor to lay. A word of caution should be given as to its care. Under no circumstances should acids be used upon it. Unless the tile itself is highly vitrolized, acids eat away the surface of the tile, resulting in discolorations which cannot be removed. A worn tile floor is a constant source of annoyance. There is only one way to deal with tile - keep it clear from the start. Allow no stains to remain upon it. Use a scouring powder which is meritorious. The word of the salesman for such powders should not be taken as evidence of value.

Walls and Ceilings. The question has frequently been asked, "How do we see, anyway?" It has always been a mystery, though recent psychological experiments seem to throw some light upon it. The most plausible explanation seems to come from the Herring theory. Vision has three specific structures: black and white, blue and yellow, red and green. Black is the absence of color. White is the presence of all colors. Gray is the result of annulling one color with another, e. g., red and green. The theory is complicated, but it may suffice to say that, according to Herring, we see because these various colors stimulate the nerve ends in the eye. Without the use of color we could not see. No further reason is required to explain our susceptibility to the color of the room. It is remarkable, however, that we see so few rooms which are tastily decorated. It might be of service to state the emotional equivalents of the ordinary colors:

Yellow = light, cheer, life, pleasure;
Red = human interest; it is the hot color;
Blue = restraint: it is cold, but soothing;
Orange = light and heat;
Green = light and coolness;
Purple = shadow, gloom, distance, and night.

From these colors all shades are obtained. Those which have proven most acceptable in dining room decorations are the shades of brown and green.

It has been found unsatisfactory to use kalsomine or similar compounds for decorating walls in a down town building. It is only a question of a few months until walls and ceilings must be redecorated. A flat finish in paint is far superior.

This is ordinarily obtained by using turpentine in place of linseed oil, though even an oil paint may be deadened by stippling with a heavy brush. A still more satisfactory finish, however, is to cover the wall with burlap or canvas, then paint with oil paint, then stipple, then apply a coat of ordinary boiled starch, and then stipple again to remove the gloss from the starch. A wall finished according to these directions may be washed annually, restarched and made to last many years without repainting.

Commercial restaurants lean almost entirely to the tiled wall and ceiling. This is highly desirable in a location where there is much smoke and dust. It is a reasonable guaranty that the restaurant is kept clean and wholesome. It creates an impression, however, not quite in keeping with the idea of the welfare building - a home for those away from home. It savors of the business of eating; and not of the social atmosphere which we wish to stress.

That which has proven advantageous to commercial restaurants should be suggestive to the welfare organization. Nowhere is this more applicable than in the case of interior decorations.

CHAPTER VI

FURNISHINGS AND EQUIPMENT

The transition from the standard dining room equipment has not been complete, and rightly so. It is frankly admitted that the cafeteria cannot answer every purpose admirably. Its main defect is shown when committee meetings or banquets are held. To have an entire group take seats at one time furnishes a good psychological setting for good fellowship. This is beyond the ordinary cafeteria service.

It is therefore desirable to provide auxiliary dining rooms for special groups. These need not be large, and may be separated from one another by folding partitions. At times they may be thrown together and thus accommodate any sized group. It is well to say here that the size and height of a room should fit the occasion. An oversized room or an unwarranted high ceiling will cast a pall upon any well laid plans. Acoustics and elbow rubbing are vital to promotion at all times, and especially so when the group rallies about a table.

The auxiliary dining room or rooms should be tastily arranged, fittingly decorated, attractively set, and should have service provided.

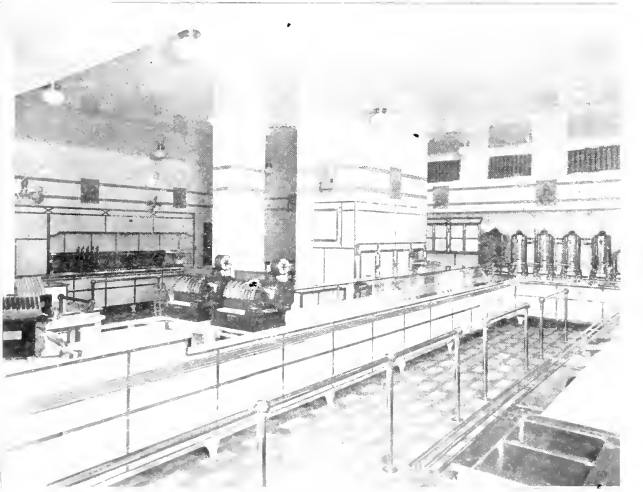
Lines of Travel

In planning the cafeteria, care should be taken to see that there are no crossings in the service line. From the time that a patron enters the building until he picks up his tray, fills it, eats and passes out he should run no risk of

coming in contact with others who are passing in and out, or serving themselves. Unless careful attention is given to this, many unfortunate experiences will occur. People are awkward with trays, and it requires but minor collisions to lead to disastrous results.

Where there are long delays in the service line, it is indicative of the fact that the time has come to either open a second service line, or realize that the equipment has great limitations. The rapid rise of cafeterias means that where an equipment is overloaded, another cafeteria will be introduced by some enterprising restaurant promoter. This leads to competition, which is always an expensive corrective. A double service line is therefore a desirable change when one line is overtaxed.

But this adds to expense. It requires duplicate equipment, and another group of attendants. There are ways of relieving this congestion. Service at the counter can be speeded up in a multitude of ways. Adroit carving, rapid motions, convenient utensils, prepared plates will all help. The best relief yet discovered to clear an overloaded service line is to make the serving corridor wide enough to enable one patron to pass another. At first glance, this seems undesirable. It is naturally presumed that one individual objects to being cut out of the line of service by another. In practice, however, this objection has proven more fanciful than real. Where the system is properly introduced, preferably with the opening of the cafeteria, no objection whatever is raised to this practice. It is a thoroughly recognized fact that there are many in line



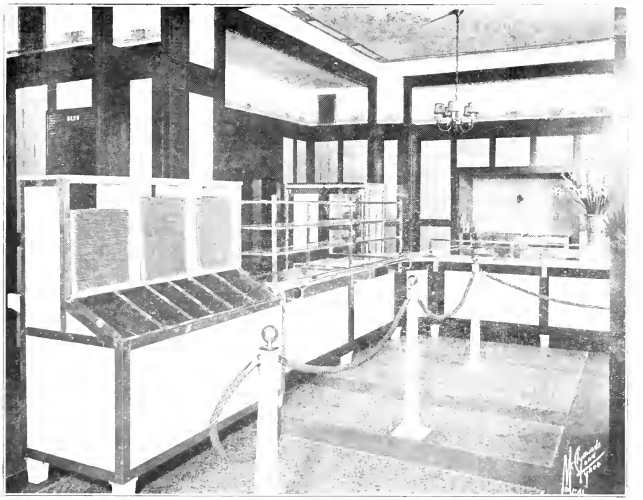
who do not care to have a hearty meal, but prefer a light lunch. A serving corridor of adequate width, three to four feet, will prove a great convenience in speeding up service.

The Serving Room

It seems needless to say that this should be placed at one end of the room, adjacent to the kitchen. This room is the key to success in many respects. Ample light should be provided at the outset. It not only adds to the selling qualities of food, but it also is a marvelous cleanser. Dirt accumulates in dark corners - give us light. The average serving room is too badly crowded for efficiency. The help behind the counter is in constant conflict; one employee slows down another; wrangling results, and the trade suffers. By all means make provision for lines of travel to the source of supply.

Here, again, efficient methods must be inaugurated. In large factories where immense output is essential, the efficiency man studies minutely every movement of the operator. One needless motion repeated a thousand times a day makes great inroads into vitality and efficiency. The hot tables, the coffee urns, the dumb waiters, the ice cream refrigerator must all be so placed that ease of access is carried to the nth power. Before these pieces of equipment are placed in their final position, it is well to test them out. Install the most mobile equipment temporarily. Experiment with location until it is absolutely certain that every motion counts.

The serving counter is one of the great sales agencies of the cafeteria. Lack of foresight here will certainly lead



eventually to disaster. Every retail store has learned the lessons of adequate display. This is so vital that window dressers have become a necessity in every establishment. Clerks are coached on the idea of advantageous display at the counter, and no precaution is overlooked to make the store appeal to every sense of refinement. Too many restaurant managers have overlooked this. Mussy dishes, soiled aprons, fingered food, unattractive counters all detract from that finesse of service which a welfare building should give. A word to the wise is sufficient, but it might be worth the experiment for the manager to fall into line with the trade occasionally and view with a critical eye the impression which is created. If there is a discordant note in the process, it should be quickly and fearlessly remedied.

Glass covers, enameled counters, polished metal, clean linen are vital accessories.

Attention must always be given to the order in which the food is displayed. It should always be remembered that certain traits reveal themselves in the serving line, as elsewhere. People are prone to forget the incidentals of a meal. Bread, butter, desserts, etc. are continually overlooked. This has led many cafeterias to provide at least two points in the line at which these may be secured. It must then be remembered that the cafeteria in welfare work has a double mission to perform. It must not be a financial charge upon the institution, and it should assist in providing a well balanced ration of wholesome food. It is generally admitted that the American

public eats much more meat than is good for it. The lighter foods, such as vegetables, salads, etc., should therefore have favored positions in the display. The heavier foods should be subdued in location. There is little danger that the public will not give them adequate attention.

The order of display in most cafeterias is:

Bread and butter
Salads and desserts
Soup, vegetables and meats
Bread and butter
Desserts, including ice cream
Coffee, tea and milk

Where this order is followed, general satisfaction results.

Tables and Chairs

Experience has shown that the table which will seat four is the most serviceable. These should be square, so that by placing two of these units together, six may be seated, and by adding others, even a long table may be arranged. It is also appreciated if a few tables seating two may be provided.

The question of table construction is immediately raised. What kind of a table will prove most adaptable for cafeteria use? Originally, the same kind of furniture was used in the cafeteria as had been in vogue in a well appointed dining room. As time went by, this equipment gave way to another, in which the table cloth was supplanted by a glass or composition top. This has proven quite satisfactory. It is recommended as a substitute for the cloth, because it can be so quickly cleaned, is always neat, and gives one such a comfortable

feeling of cleanliness. No recommendation will be made as to the kind to buy, but investigation as to a top which will stand more or less abuse without breaking, but which will grace a dining room, will be fruitful.

Substantial furniture always pays. Both tables and chairs should be of the square block type, strong and durable enough to last a cafeteria a life time. The bent wood furniture will do, but it is not advocated because it creates an impression of cheapness which should not characterize the welfare society. Tastiness, durability, comfort - these are the words which should be used in describing the atmosphere which it is the desire to create. All furniture should be strongly braced, and under ordinary wear and tear be practically indestructible.

Linen

The day of real linen has virtually passed for the welfare society. Cotton goods has supplanted it, and has doubtless come to stay. It is assumed that relatively few table cloths will be used, but, in those institutions where they are still used, it is suggested that some such goods as mercanized cotton be adopted. Napkins may be made of the same material and may be placed at the serving counter, for which a reasonable charge may be made. Paper napkins should be furnished free, and should be placed along side the regular napkins, and not upon the tables.

Dishes

The original cost of dishes is not the only cost. When buying equipment, it should be remembered that dishes break, and that within the course of a few years the original equipment is

gone, despite every precaution. The day will soon come, therefore, when replacements must occur. It is for this reason that plain white crockery is advocated. Any departure from the plain white should be made in the direction of that which is of standard design and readily purchaseable upon the open market. It is a favorite scheme of manufacturers to entice the unwary purchaser into buying for appearance sake, and particularly to buy crockery in design. This means that if uniformity is to be maintained, such a concern corners the market, and the purchaser is at his mercy.

It should also be realized that the time is soon coming when every institution will feel the tug of the financial load. It is during these periods that every cent counts, and there is no money to spend upon decorations; and that the original color scheme is forgotten, until eventually the cafeteria is equipped with nondescript dishes. This will all be avoided if the plan of using only white dishes is adopted at the outset.

This white china may be of a substantial sort, but should not be so substantial as to occasion comment. It should not be of such a design as to court breakage. Beware of cups with delicate handles, of goblets of classy design, and of any item of table outfitting which will not stand the wear and tear of the grind of hard use.

Get together a tasty, but effectual equipment, which will be in service at the end of a decade, either in original form or by way of economical replacement.

Silver

Here, again, the best is out of reach of the Welfare organization. Sterling silver is par excellance, but impracticable. The original outlay is unwarranted, and the risk of theft is too great. Therefore buy Community plate. Have it plain in design. It costs less, and is more readily cleaned. Keep it in good condition by the use of a burnishing machine or a polishing bath. Have the name of the organization plainly stamped or engraved upon the handle. Reduce the silver purchase to the minimum. It might well be limited to knives, forks, sugar spoons, tablespoons, dessert spoons, and teaspoons.

Tumblers

Glass is so easily broken that it is recommended that the only ware purchased shall be tumblers and water glasses. Tumblers should be of such a design that they cannot be stacked within one another, and that they are not easily crushed. The barrel design is preferable. Rapid changes of temperature must be avoided in washing. If the breakage of glassware is excessive, investigate, and ascertain the cause. All broken dishes should be put aside for an official condemnation. This puts the employee on his guard. In some places, broken dishes are charged to the breaker, and deducted from wages. This seems hardly fair, as some breakage is unavoidable. The official condemnation proceedings will act as a corrective. Have the date of the breakage and the name of the breaker recorded. Once each month the cafeteria manager may look this over, and decide the case upon its merits.

Curtains

It is doubtful if anything is more tasty than a white or cream scrim curtain over an attractive window shade. This is an economical type of window covering, easily laundried, and replaced. Because of the hard usage to which shades are subjected in a down town district, the best protection against soot and winds is a quality of shade which is second to none. In some places the oil painted shade has proven advantageous.

Occasionally a drape has been used. This is of a dark shade in harmony with the wall finish, and hung over the scrim. The effect is very pleasing, though it tends to shut out light.

In Conclusion

In conclusion it should be said that the whole question of furnishings and equipment is a vital one, requiring the best thought of those who erect buildings. How will the institution look ten years hence? The enthusiasm of the community will be on the wane. A growing work will tax the financing power of the board of managers. Will equipment be worn out, and must it be replaced with mediocre stuff? Or, will the original equipment be serviceable? It all depends upon the wisdom with which it was originally purchased.

CHAPTER VII

SANITATION

Within the past few years, a world has been made acquainted with vast areas of research which have transformed life. In no field of effort has there been greater progress than in the field of bacteriology. It is to be lamented that every restaurant manager cannot have the advantage of a liberal education, especially in the scientific field. Such an education would of itself elevate the status of eating places generally, until patrons could really enjoy living at hotels, restaurants, etc. The fact is, however, that with certain outstanding exceptions, the fastidiously inclined shrink from dining in the average place.

In a day when efficiency is becoming the slogan, can it be that religious and general welfare institutions and movements will be content to live in the realm of the commonplaces of bygone days? Why should not such movements as the Young Men's Christian Association set such a pace of cleanliness and sanitation that its reputation will be heralded as scientifically correct, instead of having it said, "it isn't clean there?"

To become scientifically clean should be the prime ambition of every restaurant. To do it, certain things must be kept in mind. These are too numerous to mention, but some guiding rules may be concisely put.

1. Cleanliness of floors, walls, ceilings and equipment. These are of prime importance. Where floors are clean, food is likely to be clean. To bring these up to standard, ingenuity is

required. Walls which are soiled with smoke are hard to clean. Frescoed ceilings are almost impossible, and wooden floors create despair. Those restaurants which have attained fame for cleanliness are partial to the tiled floors, ceilings, and walls. These are expensive and often out of the reach of the ordinary business. But, whatever the construction, resolve to keep it clean. Walls and ceilings may be readily cleaned with wall paper cleaner, provided they have not been mopped. Even kalsomine may be cleaned this way. Floors must be mopped with regularity. Old finish may be removed by applying hot lye, which is followed up at once with clear water. If not applied properly, it will color wooden floors and eat cement out of tile; but if floors have become dark and unsightly, remove the finish and start again. Kitchen Klenzer readily removes stains, and will even remove floor finish. In scrubbing, it will prove a valuable aid. Soap suds is standard, of course, and should be used vigorously.

2. Putrefaction and contamination. Both of these tendencies in food should be carefully guarded. It is doubtless true that neglect here has caused many deaths. Ptomaine poison, putrefied meat, diseased food - these and many other problems of food preservation and preparation are ever before the restaurant manager, who will not be true to his trust unless he gives heed to all. The following is suggestive of what might be used as guiding rules to safeguard food:

a. Never serve food taken from the plates of patrons.
b. Handle food with the hands as little as possible. Use forks, carving knives, etc.

c. Finger nails must be carefully manicured before preparing or serving food.
d. Persons with colds or other diseases should not come in contact with food, either in preparing or serving.
e. Never leave canned food in the open cans.
f. Place all left overs immediately in cold storage.
g. Serve nothing but good grade of food.
h. Use screens, glass covers, etc. to protect food from flies, roaches, etc.

3. Disease. In this modern age when contagion is so thoroughly understood, it seems unnecessary to make mention of the dangers which an ordinary restaurant affords in the field of contagion. The fact that food is cooked is a great safeguard, but it may be easily contaminated immediately after cooking. It is a well known fact that certain diseases are carried by foods. Tuberculosis is transmitted by milk. The specific is to be found in pasteurization, or boiling for an adequate period - generally twenty minutes. Cholera and dysentery are transmitted by green vegetables, in those countries where fertilization of fields is poorly guarded. Any disease which may be transmitted by the breath may be carried by food upon which the breath has been blown. Cooling of foods by blowing upon it should be discontinued once and forever. Typhoid fever may be carried by water. It is not generally realized how small an item of contamination will suffice to give contagion, nor how rapidly bacilli may be cultivated in a favorable environment.

The fact that disease is seldom, if ever, traced to restaurants has made restaurant managers careless. Not every disease may be traced to its source. Perhaps epidemics spring from restaurants. Who knows?

4. Vermin eradication. Rats, mice, roaches, and flies must go. There is a way of destroying each. Poison can be used with rats and mice. It must be used with great care. Dead animals should be readily located and removed. Traps will reduce the number, but will not clean out the pests. Flies and roaches may be destroyed by seeking out their breeding places, and by using chemical compounds. Any insecticide company should be able to advise as to a quick and available method. Screens are one of the best protections. Little can be effectively done, however, without reaching the culture in which they breed. Roaches breed within the walls and floors of the building; flies breed in horse manure and decayed foods. Let it not be said of your restaurant that flies infest the place.

5. Dish washing. The method employed in washing dishes is worthy of consideration. The great power dish washers have reduced the process to a science. Lots of hot water; a thorough sudsing, a rinsing with scalding water, and little handling reduces dish washing to a science which is sanitary and wholesome. Any process which omits a single step has perpetrated a crime upon a restaurant patronage which has a right to expect that careful consideration which the welfare institution professes to give. Dirty dishwater, soiled dishcloths, and plates but partly cleaned are a menace to health. No dishes should be used in serving which are dusty.

It will be a great day in restaurant history when legislation and inspection force a sanitary code which will remove all risk of contamination. This will include the health examination of employees. No Christian organization should wait for that day to come. It should act now and clean up its service.

CHAPTER VIII

HEATING, LIGHTING, VENTILATION, AND WATER

The cafeteria is necessarily committed to that type of heating which is adopted by the building as a whole. Needless to say, there are three standard types - hot air, steam, and hot water.

Hot air heating has practically disappeared from modern buildings. Currents of air, carrying smoke and dust, are very undesirable, and for that reason, mainly, the systems have been discontinued.

Steam is the system usually in vogue. It is very serviceable in so many ways that it is not likely to give way to hot water or electricity. After turning engines, it may be used for heating, cooking, etc. It is relatively clean, responds quickly, is installed with a minimum of piping, and is quite satisfactory.

Hot water is very desirable, but it is more expensive to install, as it requires piping to complete the circulatory system, and it can be used for relatively little else. It creates no power, and has no by-product possibilities. It does give a uniform heat which is delightful. It is clean and wholesome, but has not proven very adaptable to the welfare building.

Electric heating is in its infancy. It is not likely to attract much attention until equipment and cost of current are tremendously reduced.

In any event, heat should be uniformly maintained in adequate amount. Temperature of the cafeteria should hover

around 70 degrees. It is better to have it slightly below in preference to slightly above, as many people eat with street wraps on. Radiators should be concealed, preferably in the wall, and beneath windows.

Lighting

Of course, the only light worth considering in this age is either daylight or electric light. All other forms have become obsolete.

Needless to say, nothing can supplant daylight. Care should therefore be taken to see that, within reasonable limits, windows should be so arranged that the maximum amount of daylight may be admitted. This should not be carried to such an extent that the beauty of construction of a building is impaired, or that the heat problem is aggravated unduly.

It is a surprising thing that many buildings still permit the occasional use of old style carbon lamps. This is doubtless due to the fact that they are long lived; but by actual tests it has been shown that they are expensive under the most favorable circumstances. It pays to buy either the Mazda or nitrogen lamps, and all others of inferior quality should be supplanted at once.

The systems of electric lighting in use are - the direct, the semi-indirect, and the indirect. In the first type (direct) the open shade is used. It is simply a question of throwing the light rays upon the floor and away from the ceilings. This was considered standard until quite recently.

The glare which results from such a system caused comment, until it is no longer considered desirable.

The semi-indirect is a type in which most, but not all of the rays are thrown upon the ceiling, there to be reflected to walls and floors. There is a slight filtration of rays through the shade, thus eliminating all shadows in the room. This system lends itself very beautifully to nearly all situations.

The indirect system has become a favorite. In this system, the shade is absolutely opaque, all rays being thrown against the ceiling, and reflected to all parts of the building. In order to fully appreciate this system, one should study the principles which govern the propagation of light. This is altogether too complicated a thing to attempt to follow up here, except that it should be said that with walls finished in light colors, rays of light may be deflected indefinitely without losing much of their power. This indirect system, therefore, creates, through the deflection of light rays, an easy, restful atmosphere which is delightful for a cafeteria. It should be thoroughly investigated before adopting any other system. For economical lighting, install the system in such a way that lights may be thrown on as desired, and to any extent. Arrange it in such a way that one light may be lighted without illuminating the whole room. This may be done through a switch control near the exit.

Ventilation

The need for proper ventilation was mentioned in the chapter upon sanitation. This should be read in this connection. A summary here might include the following suggestions:

Air should be constantly changing, the old air forced out by the new.

Draughts are annoying, though not dangerous as most people think, and should be eliminated.

In rooms where natural ventilation is inadequate, forced ventilation should be employed. This may be either in the form of air ducts ventilated from the roof, or fans placed in windows.

All smoke and odors should be removed immediately. This can be done by placing hoods over all stoves, forced ventilation doing the rest.

At all costs, ventilate adequately.

Water

The water supply may be secured either from pumps or from the city system. In either event, it should be tested. This may be done by the city, and a clean bill of health secured. In the case of the private water system, every precaution must be taken to remove the risk of contamination, and the test should be made frequently.

Any uncertainty arising from the situation with the city water supply should lead to immediate action. Either spring water should be used for drinking, and that thoroughly tested, or water should be boiled for at least twenty minutes. Freezing is

useless as a germicide. Boiling is effective.

Water should be kept available at all times in restaurants. It should be kept on tables, and at an iced drinking fountain. Glasses should be so clean and the water so cold that there is a constant temptation to drink water in abundance.

Some cafeterias have installed bubblers. This has greatly reduced the number of glasses used, and is also highly appreciated by patrons. If a bubbler is installed, it should be of such a type that danger of contagion is absolutely removed. The water should flow from the bubbler directly into the waste pipe, with no possibility of accumulating in the least in any part of the receptacle. An ice coil may be installed in the basement, or water may be drawn directly from an underground pipe. At any event it must be palatable and safe. The fountain should be installed at a point where those who use it do not interfere with other patrons.

CHAPTER IX

THE LAUNDRY

To have, or not to have, a laundry is always a debatable question. Those institutions which maintain one are not thoroughly convinced that in the long run it pays, and those who do not have them are wondering continuously whether it would not pay to install their own plant. In other words, the laundry has not, as a general rule, justified itself.

This is doubtless attributable to several causes which may be summed up as follows:

Volume of Business

Like many another institution, there is a minimum output beyond which it dare not go with profit. Just what that minimum is with the laundry, is hard to say. By combining with the demands of a dormitory, some institutions have found enough business to tax the capacity of a reasonable plant. This is particularly true where work is done for individuals. It is doubtful whether a restaurant whose trade is less than 500 meals a day will find it advantageous to install even a small equipment. If such a cafeteria can combine its business with a dormitory in the same building which has a capacity of 200 roomers, there is little doubt but that it would prove advantageous.

Location

Assuming that the volume of business justifies the installation of a plant, the most vexed question which presents itself is where to locate it. Space in a building is at such

a premium that it seems foolish, indeed, to give as prosaic a feature as a laundry preferential location. But, unless it has good quarters, it will be difficult to retain competent help; work will be poorly done, and equipment will rapidly deteriorate. Sunlight is almost indispensable. This cannot be had where the location is in the basement. The best location is upon the roof. It does not cost much more to build a building with accommodations for the laundry upon the roof; and, where a building was not so constructed, a skeleton building can be put up without large expense.

Management

The third great cause for failure is one which has to do with personnel. The average institution feels that it cannot afford to pay commercial rates for help, with the result that here, as elsewhere, an experiment is tried with inexperienced employees. It takes only a relatively short time under inefficient management to convert a good set of machines into a junk heap, and to damage enough clothing to disgust the institution with the laundry experiment.

Assuming that conditions are favorable for the installing of a plant, the question of what constitutes an adequate equipment is a natural one.

The equipment which might be installed to advantage is listed as follows:

1 washer, 42x72", preferably of brass construction, having two doors, one partition, direct geared, and motor driven.

1 extractor, 30" special deep, vertical, motor driven.

1 flat work ironer, wide enough to iron a sheet with one operation.

1 drying tumbler, 40x54", reverse motion, with galvanized woven wire cylinder, one door, no partitions, single motor driven.

1 50-gallon galvanized iron soap tank.

2 all metal truck tubs.

2 ironing boards complete with single swing arm electric controller attachment, suspension brackets.

2 7½ lb. electric irons.

1 3-compartment stationary tub.

It is difficult to see how any laundry can get along satisfactorily with less than the equipment named. The dryer tumbler may seem a needless expense, but relatively few towels should ever be run through an ironer. The dryer tumbler, or tumble dryer, as it is often called, is designed purely for the purpose of drying turkish and similar toweling, which emerges from the dryer soft and fluffy.

Those who have laundries which are profitably employed are strongly in favor of them. Executives of such institutions claim that the convenience of having your own plant is worth a good deal. There is seldom any question but that linen will be on hand when wanted. If need be, a night shift can be put on, and capacity doubled. This makes it possible to expand and meet any emergency, including banquets served late at night.

They also claim that a careful management will save many dollars in the wear and tear upon clothing.

They also claim that because of the quick service which a home plant can furnish, it is not necessary to tie up such large sums in the linen supply. Linen soiled one day may be ready for use again upon noon of the day following. This makes the linen turnover very rapid and naturally saves the purchase of the almost unlimited supply which service through an outside laundry often entails.

The commercial laundryman has a ready reply. He claims that its expert workmanship, its capacity for output, its price, and all, make it the logical agent for the laundry business of the welfare institution. It is a fact that very often it is possible to get an inside price on work done, and to provide for daily service. Laundries also claim that damage to linen is reduced to the minimum.

This only bears out the contention at the outset, that we are dealing with a debatable question. It must be decided upon the basis of local considerations. All told, the advocates of the inside laundry seem to have the better of the argument, when volume of trade warrants it.

If the local plant is adopted, care should be taken to see that clothing is not damaged during the experimental period. A bleach which is strongly recommended is the Vallhalla, the process being that of passing brine through hot electric coils, producing chlorine thereby. It is claimed that this is good for setting colors, and is easy on the linen.

It would seem to be a wise procedure to seek the counsel of friendly laundrymen and of wholesale equipping concerns before adopting any plan. This is a technical matter, which no executive is thoroughly master of. He should be guided by experts, and take every precaution not to be led into false expectations or unwise expenditures. If he acts wisely, he has good reason for believing that ultimately the institution will value its laundry as one of its best service features.

CHAPTER X

THE MENU, OR BILL OF FARE

It is surprising how little people know about what they should eat, and how little they are inclined to pursue the plan which they know they should. Appetite is their guide, and taste binds them with cords of steel. The result of it is that someone needs to be preaching the gospel of the simple diet and the balanced ration. What institution is better adapted for this service than the welfare society? This does not mean that a cafeteria need be offensive or loud in its advocacy of either. In subdued ways, its message may be effectively delivered.

Many cafeterias are seriously undertaking the education of their patrons along both of these lines. Some are doing it through the plan of publishing the value of food in calories. This is a good plan, but relatively few people will take the time or the trouble to figure out an adequate diet. Others are simply calling attention to those foods which are best adapted to the accomplishment of a definite purpose. From many standpoints the latter course is preferable. This is a simple plan, which can be understood by everyone. It is more generally responded to.

Would it not be a commendable thing to place a card upon the tables, in which, in a few terse words, the story of correct eating might be told? This might give a few health hints which any local physician would be glad to write. It might explain basal metabolism. This is a term which is

thoroughly understood by dieticians, but needs explanation to the laity. It may be defined as the minimum energy requirement of the body at its lowest ebb of vitality. This is generally considered to be the energy requirement of the body when in a condition of absolute repose. The number of calories to meet the requirements of the situation thus created differ. In Sherman's Chemistry of Food and Nutrition, page 198, the following table is given:

Average Basal Metabolism of Boys, Men and Women

(Du Bois)

Subjects	Age in Years	Calories per hour per square meter of bodily surface	
		Computed according to	
		Meeh's formula	Du Bois height-weight formula
Boys	12-13	45.7	49.9
Men	20-50	34.7	39.7
Women ...	20-50	32.3	36.9
Men	50-60	30.8	35.2
Women ...	50-60	28.7	32.7
Men	77-83	--	35.1

From this table may be determined the calories required when at complete rest. With either column as a basis, multiply the figure given for the age under consideration by 24, and then by the surface area in square meters, as shown in the following table:

Height in Centimeters:	Weight in kilograms									
	25	30	35	40	45	50	55	60	65	70	75
200							1.64	1.91	1.97	2.03	2.09
195						1.75	1.80	1.87	1.93	1.99	2.05
190					1.56	1.63	1.70	1.84	1.90	1.96	2.02	2.13
185					1.53	1.60	1.67	1.74	1.80	1.92	1.98	2.04
180					1.49	1.57	1.64	1.71	1.83	1.89	1.95	2.00
175				1.19	1.28	1.36	1.46	1.53	1.60	1.67	1.73	1.79	1.85	1.91
170				1.17	1.26	1.34	1.43	1.50	1.57	1.63	1.69	1.75	1.81	1.86
165				1.14	1.23	1.31	1.40	1.47	1.54	1.60	1.66	1.72	1.78	1.83
160				1.12	1.21	1.29	1.37	1.44	1.50	1.56	1.62	1.68	1.73	1.78
155				1.09	1.18	1.26	1.33	1.40	1.46	1.52	1.58	1.64	1.69	1.74
150				1.06	1.15	1.23	1.30	1.36	1.42	1.48	1.54	1.60	1.65	1.70
145				1.03	1.12	1.20	1.27	1.33	1.39	1.45	1.51	1.56	1.61	1.66
140				1.00	1.09	1.17	1.24	1.30	1.36	1.42	1.47	1.52	1.57	
135				0.97	1.06	1.14	1.20	1.26	1.32	1.38	1.43	1.48		
130				0.97	1.04	1.11	1.17	1.23	1.29	1.35	1.40			
125				0.92	1.01	1.08	1.14	1.20	1.26	1.31	1.36			
120				0.91	0.98	1.04	1.10	1.16	1.22	1.27				

One centimeter is equal to 0.3937 inches.
One kilogram is equal to 2.2046 pounds.

This computation will approximate 1,680 calories per day for a man resting in bed without food, or 1,840 calories in bed with food. With basal metabolism as a start, it is comparatively easy to estimate the requirement under different conditions of activity. This same result may be approximated by accepting the following table as a guide for an average sized man:

Sleeping	60-70	calories per hr.
Awake, lying still	70-85	calories per hr.
Sitting at rest	100	calories per hr.
Standing at rest	115	calories per hr.
"Light exercise"	170	calories per hr.
Walking slowly (about 2 2/3 miles per hr.)	200	calories per hr.
"Active exercise"	290	calories per hr.
"Walking actively" (3½ miles per hour)	300	calories per hr.
"Severe exercise"	450	calories per hr.
Running	500	calories per hr.
"Very severe exercise"	600	calories per hr.

(Chemistry of Food and Nutrition, by Sherman)

Another and simpler approach to the same problem is to publish a list of foods which are of varying value in calories. Attention may be called to the fact that by eating foods which are low in calory values weight may be materially reduced. "Watch your ration, and grow thin." Or, by eating foods of high calory values, weight may be increased. "Watch your ration, and grow fat." A list of foods might be posted, from which it may readily be seen which are rich foods, and which are not. Such a list would look something like this:

Calories per pound of edible uncooked materials

Cucumbers	79
Celery	84
Lettuce	87
Squash	103
Tomatoes	103
Spinach	108
Watermelon	137
Cabbage	143
Milk, butter	162
Milk, skim	166
Oysters	222
Egg whites	231
Apples	285
Milk, whole	314
Cod, fresh, steaks	329
Potatoes, white	378
Bananas	447
Cod, salt	473
Cheese, cottage	498
Eggs	672
Beef, lean, fresh	709
Beef, tongue, fresh	718
Beef, dried, lean	817
Bread	1174
Sardines	1221
Molasses	1301
Beef, fat	1357
Honey	1480
Beans, dried	1564
Dates	1575
Lentils	1581
Rice	1591
Tapioca	1608

Peas, dried	1612
Macaroni	1624
Cornstarch	1632
Farina	1641
Egg yolk	1643
Cream, thick	1727
Oatmeal	1810
Sugar, granulated	1814
Cheese, American	1994
Peanuts	2487
Peanut butter	2741
Bacon	2836
Almonds	2936
Walnuts, English	3199
Oleomargarine	3410
Suet	3425
Butter	3488
Salt pork	3556
Lard	4082
Olive Oil	4082

(Feeding the Family, by Rose - page 10)

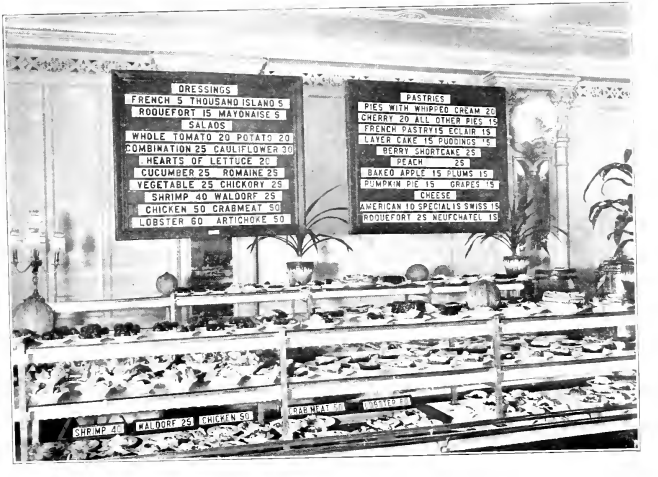
This tabulation might be continued indefinitely. Live on cucumbers, lettuce and cabbage and grow thin. Eat all you desire of them. Eat until you are satiated, yet you have not put on flesh. To eat walnuts and butter, however, is quite a different story.

Here is a simple method of assisting patrons to adjust their diet to their needs.

Only a word need be said about the cooking of food. This has been mentioned elsewhere, and is far too big a topic to deal with here. The chef who bakes pies with a crust that is soggy, but which is eaten because the filling of the pie is appetizing, is simply driving nails into the coffin of his patrons. It is useless to talk about dieting and the balanced ration when poor cooking is undoing all the good that careful eating can accomplish.

The chef and his staff should take this whole question of the menu very seriously. An educated patronage, well cooked food, a balanced ration, and a simple diet will tend to lift the modern cafeteria onto a new plane of service, and make it a worthy activity for the welfare organization.

To put on the finishing touch, have all dishes priced in plain figures. This is not objectionable when neatly done. It is due the customer who is doubtless, like many others, struggling with the high cost of living.


DRESSINGS
FRENCH 5 THOUSAND ISLAND 5
ROQUEFORT 15 MAYONAISE 5
SALADS
WHOLE TOMATO 20 POTATO 20
COMBINATION 25 CAULIFLOWER 30
HEARTS OF LETTUCE 25
CUCUMBER 25 ROMAINE 25
VEGETABLE 25 CHICKORY 25
SHRIMP 40 WALDORF 25
CHICKEN 50 CRABMEAT 50
LOBSTER 60 ARTICHOKE 50
PASTRIES
PIES WITH WHIPPED CREAM 20
CHERRY 20 ALL OTHER PIES 15
FRENCH PASTRYS ECLAIR 15
LAYER CAKE 15 PUDDINGS 15
BERRY SHORTCAKE 25
PEACH 25
BAKED APPLE 15 PLUMS 15
PUMPKIN PIE 15 GRAPES 15
CHEESE
AMERICAN 10 SPECIALS SWISS 15
ROQUEFORT 25 NEUFCHATEL 15
SHRIMP 40
WALDORF 25
CHICKEN 50
CRABMEAT 50
LOBSTER 60

CHAPTER XI

STORAGE

Big restaurant business early learned the value of adequate storage facilities. It values them because it realizes that gain results from several processes, two of which may be termed "seasonal buying" and proper "conservation of supplies" purchased.

Seasonal buying will be dealt with under the theme "purchasing." It is proposed to deal in this connection with the other process, "storage of supplies."

Devices which form the basis of an adequate storage system are the "store room" and "refrigeration."

The Store Room

This should be located where the temperature may be at least kept cool, but where there is sufficient light to permit moving freely about and locating supplies without the aid of electric lamps. It should be readily accessible to all who use it. Every effort should be made to reduce the number of steps involved in getting a meal. Fatigue is a destroyer of morale. Effort expended in any form is a drain upon vitality. It makes little difference whether fatigue is a result of study or of physical activity. It is fatigue, and an undue amount of it will result in an irritable disposition and slighted work.

This room should be equipped with any convenience that will aid in easily storing and delivering supplies.

Shelving, ladders, screened windows, locks and keys - anything that will make storage safe and handling of goods easy.

It should then be kept in order. Foods should be grouped according to kind, in order to facilitate inventory. Only such supplies as are not perishable should be put upon shelves. All goods should be carefully watched, and used immediately when further storage is precarious.

Because it is a convenient place in which to deal with a system of issuing supplies, it may be repeated that all purchases are delivered to the store room. This should be delivery in fact in most instances. Delivery may be symbolic when goods are purchased for immediate consumption, by simply turning the delivery slip over to the keeper of the store room.

With this one exception, no supplies should be issued except upon properly certified requisitions. All patrons of the store room should be supplied with a pad of these requisition blanks, which might read:

Date _____

To the Storekeeper:

Please deliver to _____

the following supplies:

Name of article	Quantity	Price	Amount
	Total		

Receipt acknowledged

(Signed) _____

These requisitions may, after the price has been inserted by the storekeeper, and properly computed, be filed. A summary of these memos will give the daily outgo of the storeroom, and form the basis of the daily report on the cost of cafeteria operation.

If desired, these memos may also form the basis of a ledger system, which will permit the carrying of a perpetual inventory. Entries for such a ledger may be obtained from the invoices for the debit side and requisitions for the credit side. Such an inventory is very valuable and is strongly recommended when at all possible. An actual inventory should be taken at the end of every month. It affords a check upon the perpetual inventory, and affords the only reliable basis for computing the expenses of the cafeteria for the month.

Refrigeration

The cafeteria which operates upon a small scale will find it advantageous to reduce its need for local refrigeration to a minimum. Arrangements may be made with local dealers for daily delivery of perishables, such as ice cream, fresh fruit and meat. This reduces the risk of loss to the minimum. Where, however, the volume of business is large, there is little doubt but that locally maintained refrigeration pays. Large hotels carry out very elaborate schemes, which involve the installation of adequate machinery and insulation. Mill shavings afford excellent insulation material, though many such plants are supplied with cork insulation instead.

A comprehensive equipment for such a storage plant might be an ice house, or an ammonia plant; (brine is often used in place of ammonia); a power ice cream freezer; a special refrigerator for meat, one for fish, one for fresh fruit and vegetables, one for butter and cream, one for cooked food, and one for ice cream.

Such an equipment is expensive. It is doubtful if the average cafeteria will find it a wise investment. It would seem more fitting to advocate the purchase of well built refrigerators which would provide a means of preserving such perishable foods as are used from day to day. This equipment should include a refrigerator for fresh meats; one for butter and milk (butter taints easily and should not be stored with other food); one for ice cream; and one for cooked food, to be served the next day.

To many, the idea of cold storage means that little attention need be given to cleanliness. It should therefore be said that adequate cold storage should in no wise afford an alibi for want of cleanliness. In fact, it is a challenge to good housekeeping. Each refrigerator should be automatically drained, unless the water is in turn frozen by one of the cooling systems; all discarded food should be promptly removed; only sanitary ice should be used (freezing kills no germs); the inside of refrigerators should be frequently scrubbed; and, in fact, no turn should be omitted that will keep the refrigeration in such condition that the offer to the public to inspect the kitchen will suffer no embarrassment should a visitor look into a refrigerator.

Preserved Food

It may be well to mention the fact that many institutions can their own fruit and vegetables. There is little doubt but that any institution pays, and pays well, for the canning of food in commercial canneries. In fact, many concerns make all of their profits from the process of preservation. Where a restaurant staff is not profitably employed with regular trade, much can be done to preserve food by the home process. Since this thesis makes no pretensions as a guide book for cooks, it will suffice to simply allude to the processes. These may be summarized as stewing, steam cooking, preserving, and dehydration. These are household words and require no definition, with the possible exception of dehydration. In days gone by, a term better understood was drying. However, this process has been widely extended until it now not only applies to fruit, but to tomatoes, spinach, cabbage, and many other vegetables. It is an industry that is in its infancy. If universally applied to all forms of perishable foods, it would go far toward relieving the menace of short rations for the world. It should be studied, as it promises to become a staple process in food preservation.

Temperature

Needless to say, the prime requisite for a good cold storage system is proper temperature. No attempt will be made to discuss this at length. It will suffice to say that for fruit and vegetables, there must be maintained a temperature

of 32 to 40 degrees Fahrenheit; for bread and pastry, 32 to 40 degrees; for ice cream, 10 degrees; for meat, 32 degrees or lower.

This temperature should be constant.

Left Overs

These are so important that they warrant a special word. It is assumed that no standard cafeteria will ever remove food from discarded plates, even for bread pudding. Only that food which has not been sold over the counter will be preserved. But even so, in the best managed cafeterias enough food will not be eaten to make or break the cafeteria.

A special refrigerator should be provided to preserve these left overs. The manager of the cafeteria should consider it a prime duty to keep track of this supply. A wise manager will see that nothing is thrown away. There is a legitimate use to which it may all be put. That use should be found, and it should be of such a type that it is palatable even to the one who prepares it. Cold meats, salads, fried vegetables, soups, and many other dishes will point the way. To throw away food means to throw away profits.

CHAPTER XII

THE KITCHEN AND BAKERY

This may be likened to the dynamo which operates an electric system. If the dynamo is poorly installed, or is inefficiently operated, the result manifests itself throughout the entire system. If the engineer does not know how to operate the power plant, no light is produced, and elevators do not run.

A kitchen well conducted and modern in every detail is absolutely a prerequisite for efficient cafeteria service. Many elements enter into efficiency here. It will be impossible to deal with all of them. Only a few will be mentioned.

The Chef and His Staff

Personnel is mentioned first, because any scheme which fails to take employees into account will fail. In the chapter on "Cafeteria Employees" considerable attention is given to the "employees." We may be warranted, therefore, in passing this important phase of the question with only the observation that it is assumed that the chef is qualified, that all employees within his department are answerable to him, and that he is vitally interested in his work and in the organization which he serves.

Cleanliness

This is put second, because it is assumed that a clean management will go a long distance to see that other things are right. How to keep clean is always an absorbing question.

It can never be fully answered without a study of the local situation. It is conceivable that in places it is almost impossible to maintain absolute cleanliness due to the amount of soot and dirt which enshrouds a building. This should not afford an alibi, but should constitute a challenge. To conquer or to die should be the slogan here.

Doubtless the first step is to try to locate the kitchen properly. It is always space well used to place the kitchen where it can receive proper outside light. An abundance of windows, through which sunlight may filter is a real God-send to a kitchen. Failing to secure this, the nearest approximation should be reached. Sunlight is a great purifier which will replace many a patent germicide.

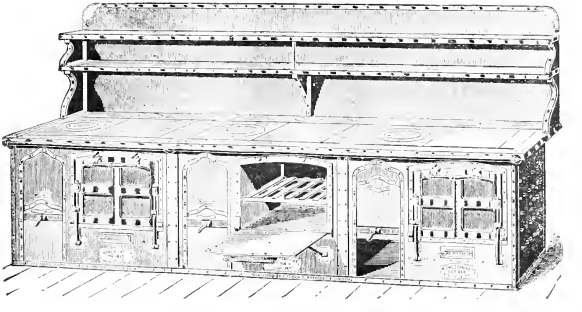
The next step is to adequately paint walls, ceilings, and floors. There is a series of restaurants throughout America which is known as the Child's Restaurants. No brief is held for this chain of restaurants, but the fact is that there is scarcely a moment in the day when the managers of these restaurants cannot, with pride, invite visitors behind the scenes. What a blessing it would be if every welfare organization in America could make the same proud boast. The place to begin is with paint. Many restaurant managers shrink from white paint. They say that it is a terrible task to keep it clean. This may be frankly admitted. It is always a terrible thing to do away with dirt. It is dirt that collects on white paint. The fact that paint is gray does not relieve the accumulation of dirt; it simply obscures it. He who is content to use dark colored paint because

"dirt won't show" is simply admitting that his kitchen is dirty, and that he wants it camouflaged. Join the ranks of those who will keep clean at any cost. Use white paint on everything that is paintable in a kitchen. Suitable paint may be secured for walls, ceiling, and woodwork. It is well to bear in mind that paint in a kitchen is subjected to a great deal of moisture, especially steam. Use a paint which will withstand moisture.

Equipment

Needless to say, there is no limit to which money can be spent upon kitchen and bakery equipment. Advertised kitchen conveniences are to be had ad infinitum. To attempt to catalogue them is out of the question. There are, however, a few standard pieces of equipment which must be purchased if a cafeteria is to be operated upon any reasonable basis.

A good range should not only accommodate the usual trade but should be large enough to permit the handling of special occasions. Such a range should be set upon legs high enough to permit adequate cleaning beneath, or should be cemented into the floor and the wall, that dirt may not accumulate beneath or behind it. The gas range has, in the long run, proven to be the most serviceable. It is well to equip it with a closed top. This conserves heat and permits cooking upon any part of the stove.



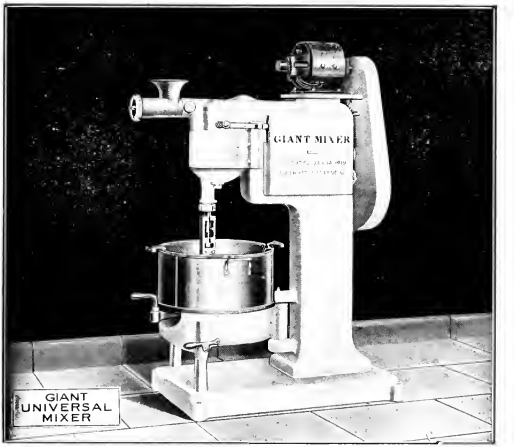
A combination meat and vegetable chopper; a bread slicer and a butter cutter; a bread mixer; a steam vegetable cooker; a vegetable peeler; and a dish washing machine, all seem indispensible and will pay for themselves within a reasonable period. Where these may be secured in combination a very useful machine has been purchased.

It pays to bake at home. Where this is contemplated, it is advisable to install a separate baking range. This should be so constructed that not all of the range need be kept in operation all of the time.

The Dishwashing Machine

Dishwashing is the bugaboo of most kitchens. No one wants to wash dishes, and only that help which finds it impossible to secure other employment will do it. The result is that changes are frequent, and incompetency is expensive. The power dishwashers are very acceptable. A good installation will wash and dry dishes as rapidly as they can be fed through the machine. There is a charm about working such a machine, which makes it an easy matter to find competent help. This is by far the most sanitary form of cleaning dishes, and is advocated wherever possible.

Where it is impossible, a more simple but effective device may be installed. It is in operation in at least one of the great down town restaurants of Chicago, where it is used in preference to power machines. Dishes are brought to the dishwashing room, where they are deposited in a metal vat. A


GIANT MIXER
GIANT
UNIVERSAL
MIXER

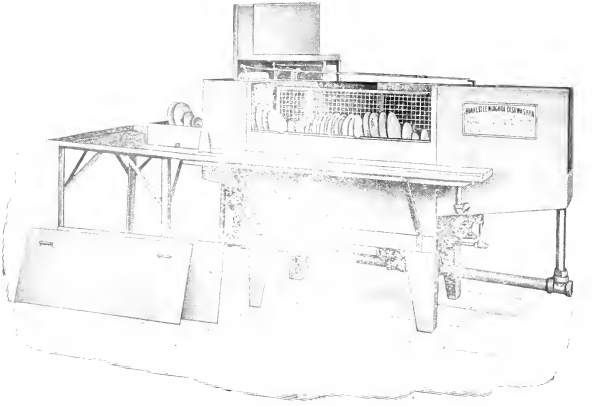
stream of water from a hose and a brush in the hands of a good worker quickly remove the coarser refuse. Dishes are then packed in great wire baskets. They are shifted to a metal barrel, where, by means of a lever, they are raised and lowered quickly a few times in a strong solution of soap suds. They are removed from this vat as clean as one could ordinarily wish, but are quickly shifted to another vat of scalding water, where they are rinsed. When taken from this vat, they are so hot that they dry instantly, and are ready for removal to the shelves. This is a method within reach of anyone whose city has a shop which has a tinsmith and galvanized iron. It can be installed at relatively little cost.

Soaps and Cleaning Compounds

Large sums have been squandered on patent cleaners, when something nearer home would serve every purpose. No cleaner is better than strong soap suds. A good quality of soap chips will answer nearly every purpose. Obstinate cleaning due to grease may require special solvents, such as Kitchen Klenzer, but in the main there is no substitute for soap, water, and elbow grease.

Pots, Kettles, etc.

There is no substitute for aluminum. Other standard equipment may be put upon the market, and when its utility is proven, it should be promptly adopted. Until then, heavy aluminum is preferred. It is light and easily cleaned. It heats quickly and retains its heat. Its closest competitor is copper.



A word of caution should be given as to quantity buying. It is a surprising thing to observe the ease with which cooks will buy a multitude of pots and pans of every conceivable size and shape. It is doubtless good economy to buy necessary equipment, but the chef should be cautioned, and reminded that welfare institutions have difficulty in securing adequate finance, and that economy is expected everywhere.

Smoke and Fumes

These are real annoyances in every kitchen, but may be eliminated. Frequently it is a result of frying in an unnecessary amount of grease. This should be watched assiduously. Canopies should be placed over all fires. These collect the smoke, etc., and conduct it to the atmosphere either through natural or forced ventilation. In extreme cases, fans should be installed. These may discharge through windows if there are no ducts leading to the roof. At all costs, get rid of this nuisance.

Electric Cooking

A visit to a kitchen which is equipped with electric appliances makes one long for the time when electric cooking may be within reach of the average consumer. Even now some hotels are installing this equipment, and some day it may be placed upon the market at a price which interests the welfare society. It is doubtless true that aside from cost, this is the finest kind of equipment, and that it may be made to answer every purpose. It should be investigated. Perhaps it is within reach.

Views of ELECTRIC KITCHEN and BAKE SHOP in Commonwealth Edison Building, Chicago:

1. Range, broiler, roasting oven; Bain Marie in foreground. Stock kettle to left, back of range. Note the lighting scheme.
2. Cook at roasting oven.
3. Feeding the Blakeslee Niagara dishwashing machine.
4. Clean dishes from the machine.
5. The stock kettles and steamer.
6. View of Kitchen showing roasting oven, mixer, meat chopper, roll warmer.

Royal meat slicer, Royal coffee grinder, Howe scales, and Richard Wilcox running ladders.

The two large refrigerators are equipped with Absolute Thermostatic Contactor control, which holds the temperature between thirty and forty degrees Fahr. One of these is for meats, the other for fruits and vegetables. The temperature control of the smaller boxes for the pantries and bake shop is direct from the large boxes. R. W. Tardiff had charge of the engineering part of the refrigeration.

The refrigeration is by McClellan machine. It

CHAPTER XIII

PREPARING AND SERVING FOOD

It was the rise of large cities, and the attendant decadence of the home, that gave rise to the modern Welfare organization. It is well to continually remind society of this fact, that the defect in our civilization which the welfare society was intended to fill might ever be kept before it.

This points the way for many an institution. Had the American home remained in its condition of a century ago, where it performed nearly all of the functions now delegated to society, there would have been little need of such organizations. But, the rise of cities in the West, the moving of people from one area to another, the migration of young men and women, and the growth of the slums of the city, called for reinforcements.

To some it may seem doubtful whether the traditions of the American home are worth perpetuating. To others the case has long ago been decided favorably. It is doubtful if the world has ever seen better homes than the average home of this country. The American home is the world's most comfortable home. You may travel around the globe and nowhere will you find homes which are as attractive, as commodious, as sanitary, and as happy as in America. It falls to the rank and file in this country to have good furniture; good light, heat and ventilation; modern devices for the saving of labor,-such as electric cleaners, electric washing machines, running water, city gas and electric current, telephones, and recently, the radio. People

have good food, and plenty of it. And, the average American home enjoys good fellowship, appealing recreation, and inspiring social, mental and religious activities. The American home is a great home, and carries great traditions.

The modern welfare building aims to reproduce this happy environment, which is denied to a large part of our people. It takes the American home as its pattern and tries to reproduce it upon a large scale - so large that instead of ministering to a family of five or six, it ministers to hundreds and thousands.

This is no easy task, because the very fact that hundreds must use its equipment daily removes it from the ideal. This offers no excuse for its failure to try to reproduce the institution which it must represent. This explains why welfare institutions have talked about "home cooking."

The cafeteria which fails to grasp the significance of this term has failed of its mission. No other style of cooking will suffice. The transient craves it, and fails to get it in most public eating places. The restaurant, the grill room, and the average hotel fail to achieve this ideal. The man or woman away from home looks to the welfare building to supply this lack, and he or she should not be disappointed.

Most institutions admit this, but seek counsel as to how to attain the ideal.

Perhaps the following suggestions will be of service:

1. Secure competent cafeteria management. Where else would one look to create a home but to the women of America?

And where would one look to reproduce the American home but to a competent woman, who knows an American home at its best? It is because of all this that a woman manager should be employed. She is likely to put into practice the idealism which she may possess in her own conduct. Therefore, aim high. Employ a woman who will put into practice the same cleanliness, the same tastiness, the same inventiveness and the same frugality which she would exercise in her own home, and the task is nearly done.

2. Strive to emulate the bill of fare, and its method of preparation, which has been in operation in the American home for over a century. New devices have been introduced for cooking food, but its American characteristics have not been lost. Good old New England left an indelible trace upon the culinary art of this country. Generations of women have passed, but the fine art of cooking has been a part of the social heritage of this country. The good things to eat which mother used to make are being made now.

3. Try the cooking yourself. It is a great corrective to get into line frequently and test your own food. If it is palatable to you, and could pass as home cooked food, it will probably pass so far as your patrons are concerned.

4. Study your patronage. If it is transient, with few, if any, steady followers, it is well to view your cooking with a critical eye. When cooking is right, it sustains interest, and trade is stabilized.

The probabilities are that there are only two or three items in the bill of fare which make or break the cafeteria.

Desserts, salads, meat, and mashed potatoes need particular attention. Pie crusts which won't crumble, with filling which is dry; meat which is too rare or too tough; potatoes which, though mashed, are filled with chunks; salad dressings which do not appeal - these are the items which generally offend.

There are a few little touches which make all the difference imaginable in the finesse of the art of serving appetizing food. Dishes which are intended to be cold should be ice cold. Those which are intended to be hot should be piping hot, served on hot plates. Milk should be served from small bottles. No food should be permitted to dry out. Soup should be properly flavored. All foods should be protected from dust. No food should be handled except with utensils. Meat should be carefully carved. It should be thinly cut across the grain. Mashed potatoes should be whipped with a power whipping machine. The help should be immaculately dressed in white, with frequent changes even during the serving of a meal. These and a number of other items which will be readily named by the kind of manager of whom we have been speaking will make a reputation for the cafeteria, which will soon place it where it will advertise itself. They will result in the kind of a cafeteria which is worthy of the name of one of our great welfare societies, and in a large measure will take the place of the home table, and of the "pies that mother used to make."

A word should be said as to the amount of food to be served. While prices which are standard in the community must be followed, a great deal of latitude prevails as to the quantity

of food served. It is in this realm that one of the great opportunities of the welfare institution lies. It is never wise to scrimp service. Servings should be generous, but care must be taken not to overdo and to be intemperate in values given. A good way to guage this is to watch plates which are returned. As a rule, all food served should be consumed.

There is also a marked difference in the patrons of a cafeteria. As a rule, women are lighter eaters than men. This should be taken into account, as well as the fact that men who work in offices require less food than those who work at manual labor. Therefore, study your trade. Give good values, but don't waste food. Keep your trade satisfied, but don't drive it away by serving so liberally that it causes remarks.

CHAPTER XIV

FOOD VALUES

Within comparatively few years, a new issue has been raised through the chemical analysis of food. Just how long this interest will continue is a question, but it now promises to engage attention for some time. As population increases, it is conceivable that it may some day become an absorbing topic, with far reaching consequences.

Suffice it to say that every restaurant manager should have at least a speaking acquaintance with the conclusions which science has reached concerning foods and food values. This chapter does not attempt to enter exhaustively into the subject but to make available to him who must read as he runs, a concise, intelligible statement on the subject.

Unit of measure. The most frequently used term connected with food analysis is the "calorie." This is ordinarily defined as the amount of heat necessary to raise one kilogram of water through one degree centigrade, or one pound of water through four degrees Fahrenheit. Quite recently an instrument was placed upon the market by which the value of food in calories may be quickly determined. This instrument is known as the bomb calorimeter. No attempt will be made to explain its operation. It will suffice to say that by means of ignition through an electric spark, a given quantity of food may be burned and its effect through heat generated, observed upon the water in which it is immersed. Full particulars concerning this devise may be

had by writing Mes rs. E. H. Sargent & Company, 143-145 Lake Street, Chicago.

Elementary Composition of Food

Ordinarily foods are said to be classified into fats, carbohydrates, protein or protoid, vitamines, minerals, and water.

To completely comprehend this classification is somewhat of a tedious process. From the standpoint of the average individual, it will probably suffice to say that fat is found in its purest form in lard, butter, and oils.

The carbohydrate is the technical term applied to sugar. Ordinary granulated sugar is pure carbohydrate.

Protein (or proteid as it is sometimes called) is the chief part of every animal cell and nearly all muscle. It is found chiefly in the white of egg, the curd of milk, the lean of meat, and the gluten of wheat.

The chief minerals are phosphorus, iron, calcium. Milk will supply all of these excepting iron.

The vitamines have never been observed except from the standpoint of result. They are very apparent here. Chemists have agreed upon a terminology which may be spoken of as water soluble B, which is found in all natural foods, such as yeast, eggs, vegetables, cereals, and milk; fat soluble A, which is found in butter, cream, cod liver oil, yellow vegetables, oranges, spinach, etc.; and water soluble C, which is found in citrus foods, tomatoes, oranges, fresh vegetables, and sprouted grain.

The Value of Foods

It seems like waste of time to discuss at great length as technical a subject as food analysis. In fact, there are so many publications which deal with this subject that any who are vitally interested in it should go much farther than is possible in a discussion such as this. But it should also be borne in mind that errors in diet are the cause of many serious afflictions. These maladjustments are not only apparent in lands where ignorance and poverty breed bodily ills which are astounding, but they are apparent in every great city, where obesity and diabetes are ordinary phenomena.

It should therefore be the concern of every cafeteria manager to be able to make suggestions which will aid in the recovery from these and other disorders. To do this intelligently, at least a casual acquaintance with food elements is vital.

The average adult should eat from 2,000 to 3,000 calories of balanced ration daily. To insure a sufficient supply, it need only be recalled that a calorie is a calorie no matter from whence it is derived. Little attention need be given to the carbohydrates, the supply of which is secured without conscious effort. It is the greater filler in diet. Sugar and starch are found in abundance. Foods which are rich in carbohydrates are apples, bananas, cornstarch, dates, honey, molasses, white potatoes, rice, sugar, and tapioca. The carbohydrates and fats are the fuel foods. Taken in excess they

result in stored food, commonly called fat. They contain carbon, hydrogen and oxygen and require no special attention except in cases of malnutrition.

The protein requirement is a more complicated affair. Irregularities in the protein supply lead to grave consequences, such as stunted growth. It is the only food which supplies the body with nitrogen, which is essential to the life of every cell and constitutes the most prominent part of muscle tissue. A child cannot grow normally without it. An adult cannot keep healthy without it. But, this need cause no anxiety. An ample safeguard has been provided through the mixed diet. It should be the aim of every individual to eat a wide range of foods. Fish, chicken, lean beef, oysters, milk, eggs, peas, beans, peanuts, oatmeal, almonds, cornmeal, walnuts, etc., if eaten liberally, will afford an ample supply.

Some attention must be given to the mineral supply. Sulpher is supplied in the form of protein food, and if the protein supply is right, it need give no concern.

Phosphorus, though required in small amounts, is important, as it forms a part of every active cell of the body, and with calcium, helps to give rigidity to the bones. It is not limited like nitrogen and sulpher to the protein food, but is sometimes found with protein, as, in the yolk of egg or in milk, or is associated with fat and sometimes in simpler forms in grains, fruits and vegetables.

Iron is another element which is vitel to body structure. It gives rise to the red corpuscles of the blood,

which transmit the oxygen to the system, and, being an element in the structure of all active cells, plays a part in secretion and growth.

Without calcium, strong bones and teeth are impossible. By far the most valuable food for calcium is milk. Considerable calcium can be obtained from the grains if the outer coats are included.

Water, of course, is exceedingly important.

It may help to realize the importance of the balanced ration if it is recalled that the contents of the human body are as follows: protein, 18%; fats, 15%; carbohydrates, 1%; minerals, 5%; and water, 60%.

Corrective Diet

There is a growing interest in the subject of relief from illness through corrective diet. In the olden days when primitive man lived upon unadulterated or unrefined food, there may have been little reason for constantly looking after the amount and quality of food. This has all been changed by a twentieth century civilization which insists upon removing vitamines, gluten, and similar essentials from all grains. The so-called refined foods are largely responsible for that American complaint, commonly called constipation.

Every restaurant manager should, consciously and unconsciously, encourage a diet which will help its patrons to attain maximum efficiency from food eaten. This is one of the by-products of the cafeteria in welfare work. To ignore it, or fail to comprehend its significance, is a tragedy in a work

MENU

SUPPER—September 14, 1922

SPECIALS FOR TODAY

		Oz.	Protein	Fats	Carbo.	Total	Portion	Apprx. Acid	Reaction Basic
SOUPS	Cream of Crecy Soup	3	9	24	25	58	¾	—	—
	Celery Soup	3	1	8	7	16	¾	—	—
ENTREES	Creamed Okra on Toast	4¼	13	58	72	143	1½	—	—
VEGETABLES	Parisian Potatoes	4	7	2	67	76	¾	—	7.9
	Egg Plant	2	9	35	19	63	¾	—	—
CEREALS	Pep o' Wheat	4½	11	4	58	73	¾	—	—
	Cero Vita Flakes	1	11	1	92	104	1	—	—
	Oatmeal Gruel	3½	3	2	11	16	½	—	—
	Cream—1 pitcherful	2¼	6⅞	106½	113⅛	124½	½	—	—
RELISHES	Fruit Macedoine	3¼	3	3	95	101	1	—	—
	Meltose with Butter	1½	1	93	92	186		—	—
BREAD	Cucumber Sandwich	2	12	123	65	200	2	—	—
DESSERTS	Tapioca Cream	3¼	13	38	68	119	1¼	—	—
COOKED FRUITS	Strawberry Sauce	3	2	0	81	84	¾	0	3.5
	Prune Sauce	2¼	3	2	70	75	¾	—	—
SOUPS	Tomato Soup	3	4	13	18	35	½	—	—
	Savora Broth	3	1	21	0	22	½	—	—
VEGETABLES	Baked Potatoes	5	15	2	130	147	1½	—	—
	Mashed Potatoes	3	8	14	56	78	¾	—	—
	Green Peas	3	19	24	52	95	1	—	—
	Stewed Tomatoes	3¼	5	2	17	24	¼	—	—
	String Beans	3	2	1	10	13	¼	—	—
	Spinach—Lemon	3	7	51	9	67	¾	—	—
	Stewed Corn	2½	8	7	56	71	¾	—	—
RELISHES	Lettuce and Lemon	1¼	1	1	4	6		—	—
	Mayonnaise	½	1	106	1	108	½	—	—
	Meltose (Malt Honey)	2½			215	215	2¼	—	—
	Meltose with Butter	1½	1	93	92	186	2	—	—
	Malt Sugar	1¾	0	8	210	218	2¼	—	—
	White Clover Honey	1½	7		150	157	1½	—	—
	Olive Oil—1 tablespoonful	½		85		85	¾	—	—
BREAD	Bran Bread	1	6	32	62	100	1	—	—
	Graham Bread	1	10	6	52	68	¾	—	—
	Whole Wheat Bread	1	11	2	56	69	¾	—	—
	Vita Bread	1	12	7	48	67	½	—	—
	Breakfast Toast	1	14	5	90	109	1	1.6	—
	Bran	1½	11	6	26	43	½	—	—
	Bran Biscuit—2	2	2	97	141	250	2½	—	—
	Granose Biscuit	1	9	5	93	107	1	2.	—
	Peanut Butter	1	33	117	19	169	1¾	—	—
	Sterilized Butter—1 square	½	1	108		109	1	—	—
BEVERAGES	Loganberry Juice	3¼			87	87	¾	—	—
	Apple Juice	3½	0	0	60	60	½	—	+
	Fruit Nectar	3½	1		92	93	1	—	—
	Milk	6	23	73	34	130	1¼	—	—
	Yogurt Buttermilk	6	23	51	20	96	1	—	2.
	Santas Cocoa	7	13	113	30	156	1½	—	—
	Hot Malted Nuts	2	52	142	98	292	3	—	18
	Minute Brew with Cream	2	7	95	10	112	1	—	—
	Minute Brew—1 teacupful	4	1	1	8	10		—	—
	Sugar—1 sugarspoonful	⅛	0	0	25	25	¼	—	—
	Cream—1 pitcherful	2¼	6⅞	106½	113⅛	124½	½	—	—
DESSERTS	Baked Custard	3¼	17	45	51	113	1¼	—	—
	Baked Apples	4¾	1	3	100	104	1	—	5
	Bananas	4⅝	7	7	111	125	1¼	—	5.6
	Oranges	5	5	3	66	74	¾	—	—

PLEASE PUT MENU IN BASKET

THE BATTLE CREEK SANITARIUM
BATTLE CREEK, MICHIGAN

SEE OTHER SIDE

Dietitian

Supper September 14, 1922 Guest's Signature Room No.

which professedly strives toward the building of character. It, too, is not a complicated problem. Even the amateur may understand the process by which the common afflictions due to malnutrition are produced.

Constipation

Constipation is in most instances a result of eating too high a percentage of refined foods. The remedy may be found in properly prepared natural foods, such as whole wheat bread, oatmeal, dried beans and lentils with their hulls, asparagus, spinach, raisins, figs, prunes, etc. This should be augmented by foods yielding vegetable acids, such as oranges, lemons, tomatoes, apples, cider, and fruit juices. Foods which tend to ferment slightly, such as honey, molasses, spinach, onions, and cauliflower, are helpful. This corrective diet and a sufficient amount of physical exercise should prove highly beneficial.

Obesity

Fat represents dead weight. As men and women grow older, they tend to decrease their normal physical activity. Appetite continues, however, with the result that it is only a matter of time until the healthy play of muscles is impeded and heart troubles accumulate. To offset this tendency, fats and dishes containing much fat should be eliminated. Butter and cream should be taboo. Sugar should be sparingly indulged in. Green vegetables, fresh fruits, lean meats, will prove helpful. If it is necessary, a careful survey of calories consumed may be taken. Bulk food, with small value in

calories may be deliberately eaten without making life in any sense a burden.

Thin People

Since food is the only source of body substance, the only way to increase weight is to persistently overfeed. The process for decreasing weight should therefore be reversed. A rich diet, coupled with outdoor life and adequate exercise, perhaps a change of climate, should be decidedly worth while.

Beriberi, Ophthalmia and Scurvy

These are common afflictions in the Orient, and may be seen in less aggravated form in America. Beriberi is a dropsical condition induced by sameness of diet. The remedy is to be found through an increase of water soluble B, which is to be found in meat, fresh vegetables, and fresh fruits.

Ophthalmia is an affliction of the eyes, which eventually results in the bursting of the eye ball and blindness. It is due to the absence of fat soluble A, and may be corrected by increasing the diet of butter, cod liver oil, chicken fat, bananas, oranges, carrots, cabbage and turnip.

Scurvy is an affliction of the skin, due to the absence of water soluble C, which can only be secured from fresh vegetables eaten raw, fresh fruits, sprouts, etc.

This list of afflictions comprises only those major ailments which may be corrected by proper and adequate diet. The manager of a restaurant may render real service to his patrons by encouraging a diet which is adapted to individual needs; which throws into prominence the coarser and natural foods; and which makes the eating of fresh vegetables and salads and the drinking of milk not only normal but vital.

CHAPTER XV

CAFETERIA EMPLOYEES

Doubtless the help problem is the most troublesome one of a considerable list of difficulties which have worried welfare workers over this particular activity. The public is exacting. It quickly resents irregularities on the part of those who serve it, and the cafeteria is no exception. The situation is complicated by the fact that men and women who have been trained just to cook must adapt themselves to meeting the public. In the days of the old style restaurant, the chef and his helpers worked behind closed doors. In the cafeteria, he finds that he has assumed a double role, because he must not only cook, but in many cases, serve as well.

The help problem was always difficult even in the old days, and the cafeteria has not lessened it, except that fewer persons need be employed. To dispose of this issue adequately, volumes could be written.

The Cafeteria Manager

Much has been said about the employment of male managers. In certain situations, he is doubtless very valuable, but the fact is that women have assumed control of most cafeterias in welfare buildings. All things considered, this is but natural, as our society has developed along the lines of home building and management by women. We think of the cafeteria as one phase of a community home. We welcome the feminine touch, as an indispensible element in the situation. Women, who are adapted to this line of employment, will find it lucrative and satisfying.

But, be the manager a man or a woman, certain traits of character seem desirable, and for the most part indispensible.

In the list, the following might be included - possibly in the order in which they are given:

Intellectual vigor;
Dependability;
Self-control;
Alertness;
Speed;
Good health;
Interest in the undertaking.

To these, many others might be added. But, there is little use in setting a standard that cannot under ordinary circumstances be attained.

It is difficult to see how any single element of the above list can be eliminated. To fall down in any one of these essentials will inevitably result in discord, worry, and disappointment.

We should quickly infer that to be the manager of a cafeteria in a welfare building is no mean task. It calls for high calibred men and women - the kind of managers who are also competent to handle important interests in business, but who follow the cafeteria business because they love it, believe in it, and find it congenial and profitable.

Needless to say that a position which demands such efficiency should be well paid. No suggestion will be made as to salary, except that executives will do well to recall that there are many chefs in large hotels who draw salaries which run into five figures.

It pays to get a good manager; to pay him adequately; to deal with him as the head of a department; and to keep him for long periods of time.

Other Employees

As a rule, it is difficult to secure competent help in the cafeteria. Much of the work that must be done is routine, tiresome and uninviting. People frequently do it as a last resort, and get away from it as quickly as they can. This results in transient help, which is independent, fickle, contentious, and fault-finding.

It would be unfair to that great body of faithful folk who do the bulk of the work in these cafeterias, restaurants and hotels to permit such a statement to go unchallenged. Some of these folk have had remarkable experiences, and are people of real parts, who are following the restaurant business because it affords a means of securing a livelihood for themselves and family, and because they enjoy their work.

It should be the aim of every manager to interest this latter class; to pay them well; and to treat them rightly.

To do this is also no mean task. It may help to make certain suggestions which have worked advantageously elsewhere:

1. Meals are generally included in wages. A reasonable quantity of wholesome food should suffice.

2. Help should understand from whom they take their orders. All contacts and orders, except in rare instances, should be through channels. The manager is the responsible

party, and all directions should be through him or his deputies.

3. Have as few rules as possible. The breakage of regulations is embarrassing. Therefore, it is far better to deal personally with an occasional individual than to have so many regulations that every employee is liable to offend. Doubtless, some rules are essential, such as those which relate to hours, smoking, wastage of time, uncleanliness, etc., but they must be reduced to the minimum.

4. Discord should be eliminated. This may be done by properly arranging work, by separating clashing personalities, by dealing quietly and privately with insubordination, and by frequent conferences with the entire personnel.

5. Keep the employees insured. Attend to injuries promptly. Deduct wages only as a last resort in case of sickness or other misfortune. Protect the health of those in your charge.

6. Where unionism is strong, employ only union help. The welfare institution has altogether too few industrial workers in it. It is a great misfortune to get the reputation of being a scab organization.

7. Pay regularly and adequately. Reward faithful service by giving a period off duty, with pay. Vacations should be governed by the amount of responsibility carried. An adequate allowance might be: one week for employees doing manual labor, ten days for the chef and other heads of departments, and two weeks for the restaurant manager.

8. Give credit where credit is due. A kindly word and acknowledgement of well earned recognition cost little, but count for much.

9. Provide for hours off duty. The eight-hour day is becoming standard. It may be broken up into shifts, thus covering meal hours.

10. Be sympathetic. It is doubtful if there is another group of employees in a city who have suffered as has this group. Personal bereavements, loss of social standing, shattered hopes, and financial worries, have all left their traces. More and more are we learning to understand folk in the terms of their experiences. Environment accounts for most of our personalities, therefore study the environment out of which employees have come.

Contacts with the Public

It has been well said that, whether right or wrong, an employee must, so far as the public is concerned, assume that he is always in the wrong. It never pays to argue with a customer. This is a hard lesson to learn, but retail stores in large cities know it only too well. It therefore behooves a loyal employee to always appear pleasant, to always be solicitous of the customer's welfare, to act quickly and forestall complaints, and to so conduct himself that he will not annoy or disturb those who patronize the institution.

It seems needless to say that all those items of personal habit which annoy others must be carefully guarded. Clean clothing, body cleanliness, manicured nails, loud talking, combed hair, clean speech - these are important and must be given attention.

CHAPTER XVI

PURCHASING

It is not uncommon for the purchases of a cafeteria to amount to one hundred thousand dollars a year. Judicious buying on this volume of business may result in a saving of 5 to 10%. This is a clear gain of $5,000 to $10,000 a year, which is no mean saving for a welfare institution. It is far better to save this sum than to raise it in the form of subscriptions. It is the equivalent of an endowment of $100,000 invested at 5%. It may be a surprise to a manager to go back over the year's business and with a critical eye estimate the savings which might have been made had his buying been done upon a highly scientific plane.

Injudicious buying is generally the result of inexperience, carelessness, hand to mouth policy, or lack of stamina. He who buys should challenge his own methods whenever he puts his name upon the dotted line of the order blank. He might well ask himself these questions:

Am I convinced that these are the best prices that are available?

Am I playing politics in buying from this individual?

Am I certain that I am getting quality and quantity?

Are these things necessary, or am I yielding to the entreaties of a salesman?

These and a few other questions that might be asked strike at the very roots of injudicious buying. Altogether

too many purchases are made without even inquiring what the market price on the commodity in question is. Frequently buying is localized in the hands of a firm because the firm gives a good subscription to current expenses. This is highly desirable when prices are right, but it is a very easy thing for a firm to recoup and more, by tacking on a little here and a little there, and in reality making no subscription to the work. It is perfectly easy for one firm to underbid another, and in spite of protestations of good faith, readily make up the difference by giving slightly inferior quality. It is also true that salesmen sell goods. That explains why they are on the road. They are trained in the art of persuasion. They are good logicians and advocates. This is all very well, but it behooves the manager of a cafeteria to be on his guard.

When it comes to the question of laying down a set of rules that will serve as a guide, it proves to be a real task, and an unsatisfactory one at best. It may be suggestive to call attention to a few rules which have been used to good advantage:

1. Get off the retail basis, and become a wholesale buyer. This is perfectly possible, even upon the basis of postponed deliveries.

2. Find a reliable purchasing agent who will act in a volunteer capacity as adviser. Do not feel that this is in any sense a reflection upon your own ability. Buying is a specialty.

3. Concentrate your buying in the hands of one individual. Buy only upon requisition, unless you are so intimate with the situation that you know from first-hand information what is required.

4. Study the market forecast, and buy at the proper season. This is a difficult thing to do, and even the most experienced find they have made mistakes.

5. Arrange for the return of overstock. Shelf worn goods are generally a dead loss. Move them in time to save them.

6. Do not pay for the reputation of a firm. Reputation is a thing to be coveted, but it won't pay bills. Buy from reputable firms, but see that you secure reputable prices.

7. Provide adequate storage for purchases in large lots.

8. Buy raw material and convert it into merchandisable products within your own institution whenever possible. Middlemen must make a living, but the cafeteria business cannot be too charitably inclined.

9. To buy is but one-half of the process. Follow through and eliminate all waste.

10. Pay promptly, thereby saving every cash discount. Discounts alone may amount to several thousand dollars a year. Every firm should give a welfare society a cash discount of from 2 to 10%.

11. Concentrate your buying, but only after you are convinced that you are in absolutely reliable hands.

12. Get bids on everything.

13. Forecast your need, and eliminate emergency buying, which is always expensive.

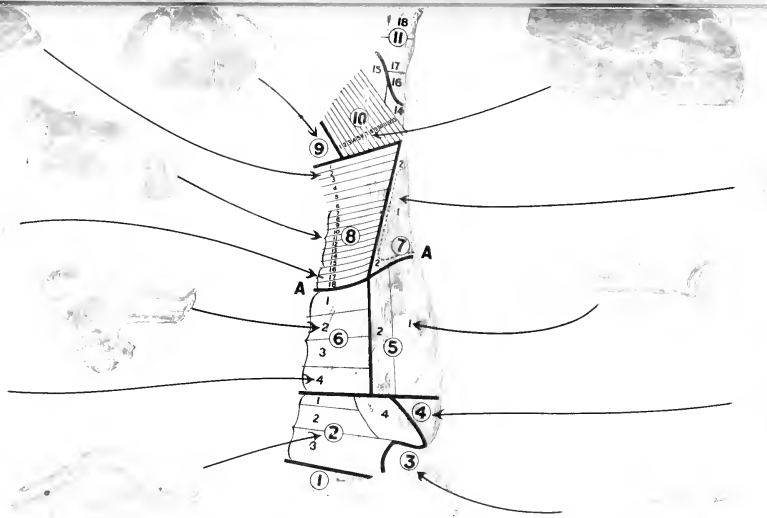
14. Give particular attention to the purchasing of meat. This is so important that it merits careful consideration. It is doubtless true today, as it has always been, that meat is the main article of diet the world over. In the local cafeteria it will prove to be one of the main items of expense. Here, as elsewhere, good buying cannot stop with the placing of the order but will follow through until it reaches the table. The good buyer will first see that quality is right, as to color, grain and fat. He will at least observe the method of cooking, which includes the flavor, and fuel consumed. He will consider the number to be served; also, whether all the meat is to be used at one meal or part reserved for a second serving; and the possible use of left-overs. He will take advantage of varying market conditions. He will substitute less expensive meat for the more expensive wherever he can. Fish may be served frequently. He will see that all of the meat, bone, fat and trimmings are properly used. By careful attention he will reduce his meat bill more than he dreams when he starts out upon his campaign. He will apply to one of the great packing houses for what printed matter they issue which deals with the retail of meat. Wilson & Company of

Chicago issue a brochure entitled "Wilson's Meat Cookery." Many of these suggestions concerning the purchase of meat will be found there. The book can doubtless be obtained by writing the Domestic Science Department, Wilson & Company, Chicago.

Familiarity with the way in which meat is cut is absolutely essential to good buying. The accompanying charts (see pages 87 and 88) may be of some assistance.

He who purchases for a cafeteria should be a member of the National Association of Purchasing Agents. While this organization deals largely with buying for industrial concerns, membership in it will give many useful suggestions.

Finally, the buyer should realize that good buying is an art. He will not be content with an overappreciation of his own ability, or with slipshod methods. He will study, and connive, and develop such a buyer's attitude that salesmen will rate him as a tough customer - friendly, but tough. His professionalism will save the institution many a dollar of the people's money.



Beef Cuts

FORE QUARTER

1 NECK

2 WHOLE CHUCK
- 1. 5th rib roast
- 2. Chuck steaks
- 3. Pot roast
- 4. Clod

3 FORE SHANK

4 BRISKET

5 PLATE
- 1. Navel
- 2. Rib ends

6 RIB
- 1. 11th and 12th rib roast
- 2. 9th and 10th rib roast
- 3. 7th and 8th rib roast
- 4. 6th rib roast

A-A—Portion above this line is the hind quarter, while that below is the fore quarter.

HIND QUARTER

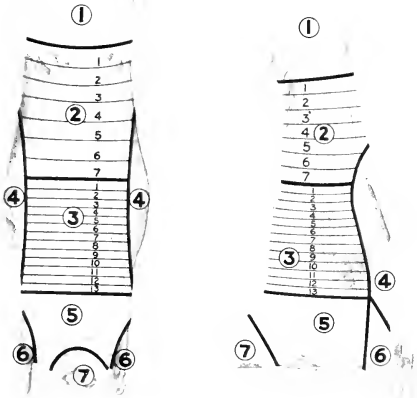
7 FLANK
- 1. Flank steak
- 2. Stew

8 LOIN
- 1. Butt end sirloin
- 2. Wedge bone sirloin
- 3. Round bone sirloin
- 4-5. Flat bone steaks
- 6. Pin bone steak
- 7-15. Porterhouse
- 16-18. Club steaks

9 RUMP

10 ROUND
- 1. First cut round steak
- 2-13. Round steaks
- 14. Knuckle soup bone
- 15. Pot roast.

11 HIND SHANK
- 16-17. Soup bones
- 18. Hock soup bone

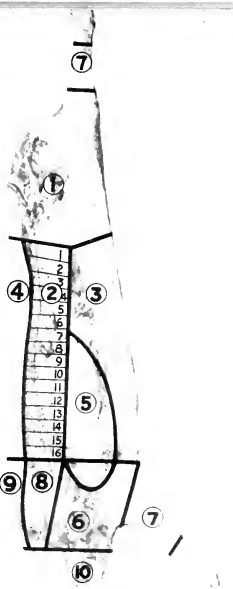


MUTTON AND LAMB CUTS

The meat should be of a deep red color and firm to the touch—the fat creamy-white and solid.

1 LEG.....Roasts
2 LOIN.....Roasts and Chops
3 RIBS (or hotel rack).....Roasts and Chops
4 BREAST.....Roasts and Stews
5 CHUCK (Shoulder).....Roasts and Stews
6 SHANK.....Broth, Soups and Stews
7 NECK.....Broth, Soups and Stews

"This mark WILSON & CO. your guarantee"



PORK CUTS

1 HAM—It is more economical to buy a whole ham. The butt can be baked, the center sliced—fried or broiled, the shank boiled, and the rind used for seasoning.
2 LOIN—Roasts and chops.
3 BELLY—Used for bacon. The best grade of bacon, "Certified," brand is the heart of this cut.
4 FAT BACK—Smoked or pickled.
5 SPARE RIBS.
6 PICNIC BUTT (Shoulder)—Roasts, steaks, chops, hams.
7 HOCK—Stewed and pickled.
8 BOSTON BUTT—Steaks and roasts.
9 CLEAR PLATE—Smoked, salted, pickled.
10 JOWL—Used for cheap bacon and generally cooked with baked beans.

"This mark WILSON & CO. your guarantee"

CHAPTER XVII

MAKING THE CAFETERIA PAY

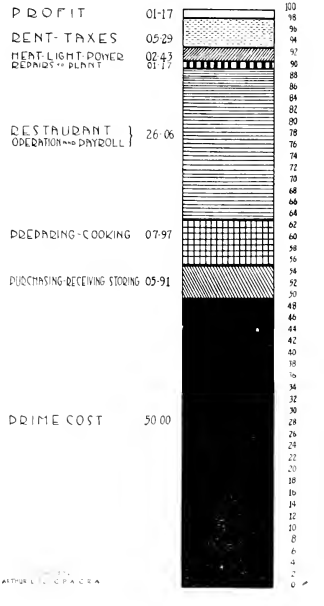
It has been assumed that making the cafeteria a social center in welfare work is the prime motive in its operation, and that making money is secondary. Assuming this to be true, it nevertheless becomes important to think through its financial operation. Those activities which are not at least self-supporting always run the risk of ceasing operations when hard times strike an institution. The more remote the possibility of self-support, the more imminent is the likelihood of a hard road ahead. Because we believe in the cafeteria as an aid to welfare work, we are peculiarly anxious that it shall be quickly placed upon at least a self-supporting basis.

It is far more difficult to advise how to operate without loss than to advise as to how to operate with profit. Every cafeteria manager knows that it is the easiest thing in the world to incur a deficit, and in any one of a number of ways. An attempt will be made, however, to discuss the problem from the positive point of view.

Volume of Business

The profit made in the average cafeteria, per meal, is from one-half cent to three cents. Probably a net profit of one cent a meal would be above the average. It is therefore apparent that if anything is to be saved it must be the result of careful planning, and of volume of business. If volume of business is low, and overhead goes on, it is only a matter of

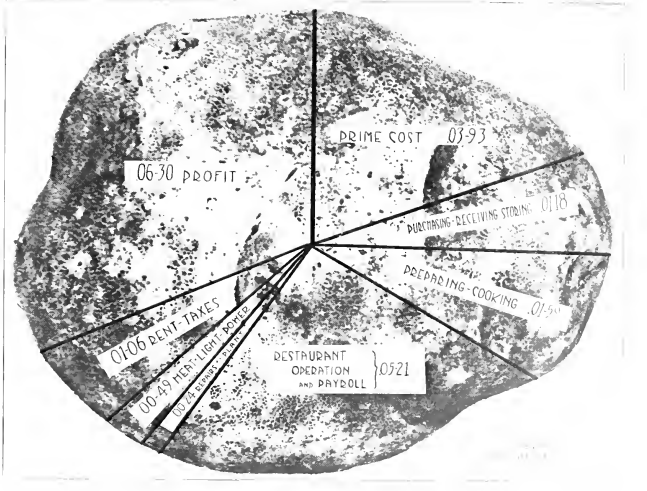
GRAPHIC CHART SHOWING PERCENTAGE PER DOLLAR OF INITIAL COST, COST OF PRODUCTION AND PROFIT IN THE SALE OF FOOD IN HOTELS AND RESTAURANTS



time until ruin follows. Just how much business must be done to provide a safe margin is a matter of more or less speculation. It all depends upon the policy of the institution. Wages, rents, etc., vary. They must be taken into account in determining how much must be realized to prevent a mishap. Ordinarily it would seem to be a foregone conclusion that little but grief awaits a cafeteria manager whose volume of trade does not reach two hundred meals a day. The margin, even then, will be so close that the risk run is very high, and surprises may happen any time. Such a business is in a precarious condition.

Overhead Expenses

Overhead is a great trap for the unsuspecting amateur. The manager estimates that he is selling everything at a profit, and cannot understand why there are unpaid bills. The probabilities are that overhead is underestimated. In determining what the overhead is, many items must be taken into account. There is always a large wastage in preparing food. Bone, gristle, peelings, decay, and many odds and ends, cannot be eaten and are pure waste, even though they did form a considerable portion of the purchase, for which the original purchase price was paid. There are receiving expenses, storing, sorting, preparing, cooking, serving, checking and accounting, to be taken into account. Heat, light, water, rent, breakage, wear and tear, repairs, and occasionally taxes eat up profits. In some of the large hotels, many other items must be added, such as chemical laboratories, flowers, dieticians, sanitary inspectors, manicurists, medical examiners, and music.


PRIME COST .03-93
06-30 PROFIT
PURCHASING-RECEIVING STORING .0118
PREPARING-COOKING .01-90
0106 RENT-TAXES
00-49 HEAT-LIGHT-POWER
RESTAURANT OPERATION AND PAYROLL .0521

It is rank folly for the most mediocre cafeteria to fail to take into account at least the following: wastage, labor, water, heat, light, fuel, repairs, replacements, rental, cold storage, accounting, and general oversight. These should be carefully and liberally estimated as a regular daily expense, from which a fixed daily charge may be determined; for use in estimating profits, as discussed later.

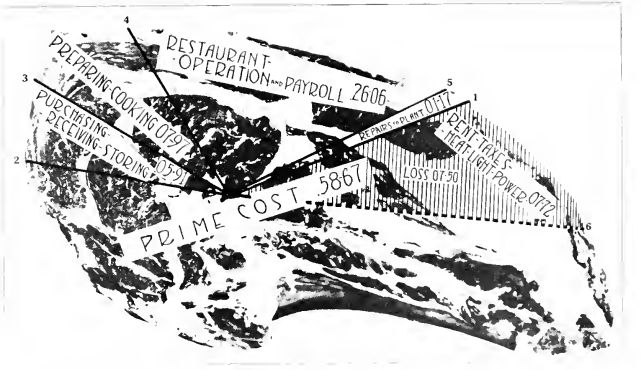
Gross Profits on Food Served

There are institutions where figuring so closely is out of the question. There is neither time nor ability to carry on even ordinary cost accounting methods. In such an instance, there is consolation in the fact that there are many successful cafeterias which depend entirely upon the plan of doubling the price of all food bought. A steak which costs twenty cents is sold, roughly, at forty to fifty cents. If this method is pursued, and it is found that 100% profit is insufficient to keep bills paid, the gross profit should be scientifically increased. Find out how much raw food was purchased during the month; how much was lost during the month, and arrive at the required profit through the following equation:

Original cost: net loss :: 100: X

X, when determined, will represent the per cent which should be hereafter added to the usual retail price to make the restaurant break even. If profits are to be made, add the desired per cent for profit.

It must be realized that this method is haphazard, and would not be employed by many up-to-date businesses.


RESTAURANT OPERATION.... PAYROLL 2606
PREPARING-COOKING 0791
PURCHASING-RECEIVING-STORING 0791
PREPARE-n-PLATE OFF
RENT TAXES HEAT LIGHT POWER 0772
LOSS 07-50
PRIME COST 5867
1
2
3
4
5
6

The Store Room and Accounting Systems

It is at this point that cafeterias may be classified. Many think it is hardly worth the trouble to work out finely adjusted systems. Life is too short.

Others subscribe unconditionally to the theory that what is worth doing at all is worth doing well, and proceed accordingly.

It is this latter group to which the following suggestions are made. The other group is hopeless, and will doubtless continue to incur deficits, change managers, close down periodically, and cast reflection upon the enterprise.

The storeroom is the key to a successful cost accounting system. It should be conducted just like a retail store. Every article purchased for the cafeteria should be checked in, or delivered to the storekeeper. Delivery may in some cases be symbolic - that is, the invoices for goods to be immediately consumed are delivered to the storekeeper and immediately billed out to the chef, or others who use them. This plan, however, is precarious. It is so easy to step out to a store, forget the invoice, and consume the goods without making notations. There are some employees who are so careless in this matter that the privilege of buying must be entirely withdrawn. Failure to report must be dealt with firmly and promptly, if a surprise is to be avoided at the end of the month.

Assuming, however, that all purchases are reported promptly to the storekeeper, the system is easy. A record will be kept of all goods delivered to the chef or his assistants

for the day. These will be invoiced at the end of the day, thus accounting for all raw material consumed. The invoice for the day may, by way of illustration, amount to $65. To this should be added the liberal estimate of daily overhead and the total expenses of the day determined. Assuming that nothing but a cash business is done, it is then an easy matter to deduct cash income from total expense, or vice versa, and quickly arrive at net loss or profit. This process consumes but a relatively short time each day, and makes it possible for the cafeteria manager to turn the key at night and go home with an easy mind.

The unsophisticated will say that there is far too much machinery involved in it, but the daily statement has pulled many a cafeteria out of its financial difficulties in an incredibly brief period. It is the only scientific method known, for counting costs in a business whose margin is always too close for comfort.

If the daily system is too burdensome, the weekly basis might be adopted, but the interval should never be longer than one month. Whether it be the daily, the weekly, or the monthly basis, the storeroom in an indispensible asset. The more tightly the system is drawn, the safer is the basis of operation.

Leaks

By leaks we mean all that realm of things which result in a diminution of returns, which might, with efficient management, turn either loss or inadequate profits into that

margin of safety which yields its return regularly in the form of normal profits. Goods carried out the back door by unscrupulous help; expensive shortening used where less expensive would do quite as well; poorly cooked food, which drives patrons away and reaches the garbage can by the quickest possible route; too generous servings; plates returned with helpings left over; these and a thousand small restaurant habits bank up the deficits until some day the cafeteria will close its doors.

The remedy may be quickly found. The storeroom as a safeguard for provisions; good cooks, who cook victuals which people love to eat; careful utilization of wholesome left-overs; helpings which patrons actually eat; perishable food sold immediately; these represent the profits of a normal restaurant. To neglect them means ruin, and rightly so, as it is an indication of a management which is unfitted to operate so finely adjusted a machine as the cafeteria of the modern welfare building.

The Payroll

Attempts have been made to establish a percentage cost of wages as related to total costs. These have not been very successful, as they range from 18 to 30%, in cafeterias which seem to be successful. It is probably safe to say that when the payroll exceeds 25% of the total cost of operation it is time to begin an investigation. It is far better to keep the cost of help down to 21%. This provides a margin of safety which is comforting. Such a policy will go far toward insuring success.

CHAPTER XVIII

ACCOUNTING

It is assumed that the accounting for the average welfare institution is done entirely within the main office, and that unless the volume of business is very large, the manager of the cafeteria will have little to do with accounts. The only record with which the cafeteria itself need to be concerned is that which grows out of the operation of the storeroom. If this plan can be followed, it will prove a great help to the operation of the cafeteria and place the responsibility for accounting where it is apt to be more adequately handled.

The main office of the institution may seek suggestions as how best to handle the detail which flows in as a result of doing thousands of dollars worth of business in a year from receipts which average thirty-five cents per person served. It is for this reason that a brief statement is made regarding records of accounts.

General Guiding Principles

1. From the time that even one cent is paid until it has been deposited in the bank, it must be traceable with certainty. A device which will assist in carrying out this ideal is to ask the question whether at any stage of the operation any reflection can be cast upon any individual as to the disposition which has been made of the funds which passed through his or her hands. The safeguard is to be found in properly executed receipts, which should be preserved.

2. From the time that supplies are ordered until the invoice therefor is paid, that transaction must be traced with certainty. A device which will insure this with reasonable certainty will be found in the following plan:

a. An order book in the hands of one individual, upon which every order will be recorded. For cafeteria purposes, the cafeteria manager may be charged with this responsibility.

b. As soon as an invoice reaches the business office, it is recorded and numbered. The amount may be omitted until there has been ample opportunity for checking and rechecking. This entry will be made upon the "voucher register," mentioned later. An immediate entry, before it is turned over to anyone for approval, will insure against surprises due to invoices permitted to lay about in desks, etc.

c. All goods taken from the storeroom must be properly recorded and receipted. Think of the storeroom as a small grocery store. It, like all other parts of a building, must keep an accurate record of operations, ultimately showing a statement of profit and loss.

d. No payments shall be made except by check, properly certified by a member of the Board of Managers, and signed by the Treasurer of the institution.

e. A correct filing system. This may be very simple, and in its simplest form may consist of two ticklers or loose leaf files, in one of which all unpaid invoices are filed, and in the other of which all paid invoices are filed - both arranged alphabetically according to the name of the firm.

3. A report by an auditor of local reputation such as to result in the establishment of confidence in the management.

To carry out these ideals certain books of entry are necessary. There is a minimum requirement for a set of books. This minimum may be expanded to accommodate any voucher system. It is the thought that since very few managers are expert accountants, the best interests of all concerned will be served by adopting the minimum requirement. We think of this as follows:

1. A cash register, which is at least accurate and unimpeachable. All cafeteria payments should be tallied on such a register.

2. A master cash register in the main office. This may well take the form of an Egry register, from which a receipt may be drawn in triplicate. One form will be retained by the restaurant manager; another will be retained by the accountant for balancing accounts; and the third will be inaccessible except to the business manager or auditor.

3. A cash received book, which may record only summaries for the day. The following form may be suggestive:

Record of Cash Received

Date	Receipt Numbers: From	Receipt Numbers: To	Total Amount	A Classification of Sources of Income				Bank Deposit: Date	Bank Deposit: Amount
Totals									
Brought forward from previous months									
Grand Total									

4. A voucher register, which may take the following form:

The Invoice Record

Date	Invoice Number	From Whom Purchase Was Made	Amount	When Paid	Check Number	Amount
	Total					

If desired, the unpaid invoice account of the previous month may be recorded in the first column. To arrive at the amount of invoices unpaid, add this amount brought forward to the amount on invoices incurred for the month, and de uct therefrom the amount of payments made as indicated in the last column. The result is the amount of invoices unpaid.

5. A record of payments made. This may take the following form:

Record of Checks Drawn

Date	Check Number	In Whose Favor Drawn	Amount	Deposited	Bank Balance
		Totals			

6. Ledger. This may well take the form of a ledger of controlling accounts only. By controlling accounts is meant a general summary of operations under a few major items, such as "Cafeteria," "Subscriptions," "Dormitories," etc. Only monthly summaries will be entered in the ledger. Detail analysis will appear upon supporting records which are kept entirely independent of the ledger, which serves the purpose of keeping books in balance, and providing a ready means of making reports on total operations.

The Auditor, and the Audit

To require an audit of each employee handling cash is simply good business. To demand an audit on the part of every employee handling cash is merely self-protection. Never run the risk of having reflections cast upon a present-day regime by some one who comes later. Audit all accounts.

The auditor may well be a local party. The danger in employing a local auditor lies in the fact that he is accustomed only to accounting for commercial concerns. He

thinks purely in the terms of installing a set of commercial books. He overlooks the fact that welfare institutions cannot as a rule employ the expert accountants generally employed by a commercial establishment. He also overlooks the fact that the volume of business transacted by the average welfare society is not large enough to occupy the time of such an accountant. Bookkeeping is therefore combined with some other function of an employee. The aim should therefore be to construct such a system of accounts that it protects, but at the same time can be readily comprehended and operated by the average, shifting personnel. The system which has been suggested is of that type.

CHAPTER XIX

BANQUET SERVICE

It has been assumed that the only real justification for the operation of a cafeteria within a welfare building is the idea of a social center. It has been assumed that ordinarily the profits will not be large, and that the misunderstandings and complaint which often arise are hardly worth the worry that they cause without having a commensurate return in the number of people who are, through it, interested in the work in which such an institution is engaged.

This being in any considerable measure a true hypothesis, the serving of banquets and dinners becomes more than a mere incidental affair. They become important functions, which require unusual skill in preparation and service.

This is often overlooked by the manager who is primarily interested in making money, or who is weary of well doing, and is content to merely make a living both for himself and his cafeteria. Anything which he may be called upon to do which is out of the ordinary routine is met with hostility. A saner plan would be to so prepare his organization that he not only does not feel that it is an intrusion to stage a banquet, but that he welcomes every opportunity to extend his service to all comers; thus magnifying the utility of the cafeteria to the institution which it serves.

It is not necessarily assumed, however, that this means that he must operate special functions at a loss to his

business. He should expect to make a reasonable profit and, in fact, to demand it from whomsoever comes. This has been a bone of contention in many institutions, where the restaurant has been expected not only to furnish service at great personal inconvenience but to bear a financial load which belongs to some other departments. In rare instances it has sufficed to pay actual costs of food and labor for banquet and dinner service. It is considered better form to pay the cafeteria approximately what it would receive from outside parties for service rendered, and to provide the budget for such service as a part of the departmental expense. This gives credit to whom credit is due, and makes for accord within a staff.

The Banquet or Dinner Price

In determining price, several things must be taken into account. They may be summed up as follows:

1. How many will be served?
2. What kind of a dinner is desired?
3. May seasonable foods be used?
4. Is service to be supplied, or will cafeteria service suffice?
5. Is there a guarantee as to number?
6. What kind of plate service is desired? French? All dishes removed between courses? Russian? All dishes served as rapidly as possible, and all clearing of tables left until the last?

Probably no question in the list causes such debate as does the one on guarantee. There is always a risk involved. Many expect to come, but few finally attend. Who is to bear this risk?

It is useless to discuss at length this element of risk, which varies with occasions. But, were it a commercial institution, it is a foregone conclusion that the margin of safety would be sufficiently high to relieve any possibility of loss. This explains why the guarantee is generally resorted to by hotels and restaurants. In the long run, it pays not only to demand a guarantee but to expect to give one. The organization which is staging an event knows better than anyone else who is likely to attend. By exacting payment in advance, and by starting far enough ahead of the event, the number of tickets required may be determined easily. Cafeterias generally are quite willing to accept a provisional guarantee.

Expeditious Banquet Service

There is undoubtedly a place for so-called "style" in banqueting. It is doubtful whether those who patronize the welfare institution either want or expect the finesse of service that the leading hotel of a community provides. It would seem that the demand is for quicker service, tastily rendered; and it is this kind of service which the welfare institution is peculiarly fitted to give.

Forty-five minutes is the limit of time which should be taken for the serving of the meal. If it can be done in thirty minutes, it is much better. This is the time allotted irrespective of the number served. It can be done for five hundred people, if a few simple rules are kept in mind.

A cool-headed manager is the prime requisite. The fussy, excitable individual should never be charged with as high tension a piece of work as serving a large crowd in a brief period. It is nerve racking, and "to let go" with the nerves simply aggravates a bad situation. Poise, assurance, quiet tones, and a smile are needed here. But, at the same time, there must be intense activity.

It is folly to economize on help. A waiter to each ten or twelve people would seem to be a sensible average. By planning carefully this number can be cut down, but only through a highly developed system in the hands of adroit people.

Do not overcrowd. The atmosphere surrounding one of these functions makes or breaks it. Plenty of aisle room; plenty of elbow room; a comfortable sense of ease and enjoyment, are all vital to a well conducted banquet. Aisles should be kept clear, lines of service must not cross or conflict, seats at least eighteen inches, preferably twenty-four, for each person,- all help to speed up the meal.

Tables should be as completely set as possible. In fact, everything except those dishes which are either hot or cold may be placed upon the table in advance. Coffee cups should be placed in advance and coffee poured from pitchers. Soups should be avoided. Use a fruit cocktail, or something similar in its stead. Plate service is a great time saver. Where the time period must be reduced to twenty minutes, serve everything from the end of the table, letting guests pass plates to the far end. This is a great time saver. It robs the dinner of its niceties, but it has been used at times.

The key to rapid service is the serving room. Here it is essential that absolute order prevail. Every one in line, every motion counting, a server at each element of the meal (one serving potatoes, another meat, another peas, etc.), while dishes move from one end of the line to the other, to land eventually upon a waiter's tray.

Bread and butter should be placed on the table in advance. Ice water should be poured just before the guests enter. Frequently this is overlooked. But the most appreciated part of the meal is cold water, plenty of it, available at the beginning of the meal.

The finesse of setting tables is also important. Simple but tasty decorations, such as fern leaves, or something similar, strewn about; potted plants, or ferns, at frequent intervals; individual floral favors; napkins uniformly placed; chairs in line; all these add to the joy of the occasion.

Knives, forks, spoons, etc., should be placed in conventional order. Knives and spoons are always to the right of the plate; forks to the left. Coffee is served to the right; salads, bread and butter, generally to the left; napkins directly in front.

Service is generally over the left shoulder. This is especially true if it is the expectation that guests should assist in placing the plates on the table. It is very awkward to reach for a plate either with the left hand or with the right as the plate is reached over the right shoulder.

Bills of Fare

In deciding upon what may be given for a fixed price, bear in mind the general rule that raw material should not cost more than 50% of the retail price. To be more generous than this means to court trouble eventually. At a hotel banquet the cost of raw material is relatively much lower than that.

Suggestions as to menu may be found in numerous treatises upon the subject.

Frequently this order is followed:

Grape fruit, or oysters on the half shell;

Olives, sweet pickles and celery (on the table);

Roast beef, chicken, roast ham, or roast turkey. These are given in this order as being the kinds of meat most generally served. Chicken, of course, is the favorite;

Mashed potatoes;

Peas, or other side dish of vegetables;

Ice cream, pie, or pie a la mode;

Coffee.

That institution which adjusts its machinery to care for banqueting service, and does it well, will find that eventually it has created a situation of good will in a community, which will serve it well in financial crises. Here is a real asset to welfare buildings. Make the most of it.

CHAPTER XX

THE CAFETERIA A SOCIAL CENTER

This concept of the cafeteria in the welfare institution has been suggested in other connections. But, by way of summary, the idea is worthy of special mention.

In fact, if any other conception prevails, the experiance with cafeterias and other forms of eating places will in the long run prove a disappointment. As a revenue producer it will never be a vital factor. Its main value is now and always has been a means of attracting patrons to the building, and of accommodating those who come for other activities. This being the case, there would seem to be no excuse for not making the most of it.

Success in this particular will be achieved when executives strive to bring service up to the highest point of efficiency. The place to begin is "with service." Let no eating place in town surpass the quality of service given. Absolute cleanliness, enticing environment, wholesome and palatable food, courteous treatment and reasonable prices will, when combined, attract trade. All of these have been dealt with in preceding pages, with the exception of courteous treatment.

The art of successfully running a cafeteria resolves itself, after all, into the art of good salesmanship. To attempt to deal with that topic in full is impossible here. The first step will be to attract attention. This will be done

by proper advertising, strategic location, and satisfaction given. The next step will be to interest possible patrons. This will be accomplished by bringing them into the building for other occasions, and by putting on such a type of service that the occasional visitor goes away thoroughly satisfied. The last step will be the retaining of interest through the device of making service so appealing that visitors want to come back. It is in connection with this last idea that courtesy plays an important part. Every individual who meets the public should be thoroughly schooled in the art of winning friends, and keeping them. It is not an easy thing to meet the public day in and day out. The idiocyncracies of patrons become known. Those who serve the individual continually will, unless safeguarded, assume attitudes that drive away trade. The serving counter of a cafeteria is a great place at which to study character. It is here that a cross section of humanity passes daily. To assume and maintain an attitude of interest in the welfare of such a motley group is not an easy thing to do. Nothing will succeed in creating an attitude of concern for the welfare of patrons (good, bad, and indifferent) better than a keen appreciation of the place which the modern welfare institution is supposed to fill in our communities. It is well to recall that it grew out of the decline of the American home - and an American home of the right sort is a place in which there is affection in spite of peculiarities.

Every employee should manifest, therefore, a keen and abiding interest in the welfare of individuals. Anticipate wants, instantly remove any annoyances when possible; respond quickly to requests for service; remove discarded dishes at once; stand for unlimited abuse before responding to indignities; always assume that the patron is in the right and never dispute his claims. These principles will go a long distance in breaking down prejudices and in winning esteem.

This has to do with the regular and casual patron who has no particular errand at the building except that of getting good food.

When it comes to dealing with groups, a new element enters into the situation. Groups meet for specific purposes. They meet about the common meal because they can save time, and talk while they eat. They desire quiet, expeditious service, and sociability. Many sociologists claim that the group makes the individual. We are what the group is with which we move. The groups which patronize the welfare cafeteria are high grade. It is they who look after the well being of communities. They maintain standards to a large extent, and, in one form or another, do the bulk of welfare work within the community. They are worth serving. They should be encouraged in every possible way to meet frequently and to meet under the roof of an institution which is never run for profit, but which is run for the good of the community. Special rooms for dinners to such groups will encourage patronage. Give high grade service to this constituency, thereby not only building good will for

your own institution but for the community which you serve.

Reference has been made to service to other departments of the building. This is a satisfying field of effort. It is appreciated by others, when it is done happily and willingly. A proper attitude is the key to this service. To see the full import of the opportunity which is thus afforded a cafeteria manager one should study with care the ideals of the institution. It is building Christian character, and to a greater extent than is ordinarily preceived. Lives are being made better, interest in others is being quickened, and channels of usefulness to humanity are being opened. The cafeteria manager should appreciate these, and deem it a privilege to provide the medium through which such promotion can be conducted. He should so arrange his work that he and his help have time to respond to requests for service, even when they are given upon short notice.

It is not an easy thing to foresee all needs. Every precaution should be taken to protect the cafeteria against unlooked for demands. Meals should be arranged for well in advance. Numbers should be determined with exactness. Help should be given when required by the cafeteria management, but service should ever be available. Where there is a will, there is a way, and service is almost always possible, if so willed.

Banqueting has been considered elsewhere. It remains only to say that every effort within reason should be

put forth to encourage banqueting within your building. To bring outsiders into the building means to make friends.

This, then, is the key to the cafeteria as a social center: service to the individual, service to the small group, service to departments, and service to the public.

Upon this basis the cafeteria will be prized and its permanency assured.

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A PARTIAL LIST OF CONCERNS MANUFACTURING RESTAURANT EQUIPMENT

The following list is given purely for the convenience of the trade. It is not paid advertising, neither does it purpose to be complete. It does form a ready reference for the cafeteria manager who wishes to quickly find a reputable concern in lines which he may need. Before buying, an effort should be made to locate other producers.

Bakery Outfits
G. S. Blakeslee & Co., Cicero, Ill.
Read Machinery Co., York, Pa.

Aluminum
Aluminum Cooking Utensil Co., New Kensington, Pa.

Bills of Fare Signs
R. W. Clark Mfg. Co., Chicago.
Davenport Taylor Mfg. Co., Chicago.

Bread Crumbers
Goodell Co., Antrim, N. H.

Bread Slicers
G. S. Blakeslee & Co., Cicero, Ill.
Northern Equipment & Supply Co., Minneapolis, Minn.
John E. Smith's Sons Co., Buffalo, N. Y.
U. S. Slicing Machine Co., LaPorte, Ind.

Butter Cutters
Northern Equipment & Supply Co., Minneapolis, Minn.

Cans, Garbage, etc.
Witt Cornice Co., Cincinnati, Ohio.

Casters
Jarvis & Jarvis, Palmer, Mass.

Chair Glides
S. Andrews, Chicago, Ill.

China
Onondaga Pottery Co., Syracuse, N. Y.

China, Cooking
Hall China Co., East Liverpool, Ohio

China, Glass, Silver
Albert Pick & Co., Chicago.
Duparquet, Huot & Moneuse, New York.

Choppers
John E. Smith's Sons Co., Buffalo, N. Y.

Coffee Urns
Duparquet, Huot & Moneuse Co., New York.

Coolers, Water, etc.
Acorn Opalite Metal Specialties Co., Chicago.
McKee Glass Co., Jeanette, Pa.

Cookers
Cusine Products Co., Chicago.

Cook Books
John Willy, 443 South Dearborn St., Chicago.

Cooks' Jackets, Aprons, etc.
Angelica Jacket Co., St. Louis, New York, Los Angeles.

Counters
Chicago Equipment Co., Chicago.

Cutlery Renovators
Dilg Mfg. & Trading Co., New York.

Dishwashing Machines
Colt's Patent Fire Arms Co., Hartford, Conn.
G. S. Blakeslee & Co., Cicero, Ill.
Crescent Washing Machine Co., New Rochelle, N. Y.
Fearless Dishwasher Co., Rochester, N. Y.
North States Mfg. Co., Minneapolis, Minn.
Sanitary Dishwasher Co., Indianapolis, Ind.

Dish Carts
Jarvis & Jarvis, Palmer, Mass.
Wheel Tray Co., Chicago.

Duplicator, Menu, etc.
Rotospeed Co., Dayton, Ohio.

Egg Boilers
Espy Curtis & Co., Chicago, Ill.
Perfect Auto Egg Timer Co., Chicago, Ill.

Electric Ranges, etc.
Duparquet, Huot & Moneuse, New York.
Edison Electric Appliance Co., Chicago.

Employment Agents
Brierly Company, 127 N. Dearborn St., Chicago.
Chicago Employment Agency, Chicago.
Lewis Hotel Training School, Washington, D. C.

Fountains, Drinking
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.

Grocers, Wholesale
John Sexton & Co., Chicago.

Kitchen Specialties
G. S. Blakeslee & Co., Chicago.
John Van Range Co., Cincinnati, Ohio.
Roberts Portable Oven Co., Chicago.

Kitchen Utensils
Jamney Steinmetz & Co., New York
Nickel Fabricating Corporation, Philipsburg, Pa.

Knife Cleaning Machines
Dilg Mfg. & Trading Co., New York.

Laundry Machinery
American Laundry Machinery Co., Cincinnati, Ohio.
Troy Laundry Machinery Co., East Moline, Ill.

Linen Marker
S. M. Olsen Co., New York City.

Linens
Albert Pick & Co., Chicago.
A. W. Baylis Co., New York.
R. W. Eyster Linen Co., Chicago, Ill.

Lunch Counters, Stools, etc.
Chicago Equipment Co., Chicago.
Sani Products Co., North Chicago, Ill.

Lunch Room and Cafeteria Outfitters
Burton Range Co., Cincinnati, Ohio.
Wm. F. Traub Range Co., Chicago.
John Van Range Co., Cincinnati, Ohio.

Marking Machines
National Marking Machine Co., Cincinnati, Ohio.

Meat Choppers
John E. Smith's Sons Co., Buffalo, N. Y.

Mixing Machines, Kitchen
Century Machinery Co., Cincinnati, Ohio.
J. H. Day Co., Cincinnati, Ohio.
Hobart Manufacturing Co., Troy, Ohio.
Read Machinery Co., York, Pa.
Triumph Manufacturing Co., Cincinnati, Ohio.

Mop Wringers and Mopping Tanks
S. C. Lawlor & Co., Chicago, Ill.

Parer, Apple
Goodell Co., Antrim, N. H.

Pie Marker
Standard Pie Marker Co., Milwaukee, Wis.

Portable Bake Ovens
Hubbard Oven Co., Chicago.
Roberts Portable Oven Co., Chicago.
Universal Oven Co., New York.

Ranges and Kitchen Outfits
Albert Pick & Co., Chicago.
Burton Range Co., Cincinnati, Ohio.
Duparquet, Huot & Moneuse, New York.
Wrought Iron Range Co., St. Louis, Mo.
John Van Range Co., Cincinnati, Ohio.
Zahner Manufacturing Co., Kansas City, Mo.

Refrigerators
Dry Cold Refrigerator Co., Niles, Mich.
Jewett Refrigerator Co., Buffalo, N. Y.
Ligonier Refrigerator Co., Ligonier, Ind.
McCray Refrigerator Co., Kendallville, Ind.
C. Schmidt Co., Cincinnati, Ohio.

Silver Burnishing Machine
American Laundry Machinery Co., Cincinnati, Ohio.

Silverware
The Gorham Co., Chicago, New York, San Francisco.
International Silver Co., Meriden, Conn.
Read & Barton, Taunton, Mass.
R. Wallace & Sons Mfg. Co., New York, Chicago, San Francisco.

Silverware Repairer
Chas. A. Allen Plating Co., Chicago, Ill.

Subveyor
Samuel Olson & Co., Chicago, New York.

Table-cloths
Rosemary Mfg. Co., Roanoke Rapids, N. C.
A. W. Baylis Co., New York.

Tables
Fond du Lac Table Manufacturing Co., Fond du Lac, Wis.
H. L. Handy Chair & Table Co., Springfield, Mass.
The Vitrolite Co., Chicago.

Toaster, Electric
Waters-Genter Co., Minneapolis, Minn.

Towels
Cannon Mills, Inc., New York

Uniforms
Angelica Jacket Co., Chicago, New York, San Francisco.

Urns, Coffee
Berle Mfg. Co., Davenport, Iowa.

Wagons, Service
Jarvis & Jarvis, Palmer, Mass.
Wheel Tray Co., Chicago.

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